

THE AWARD WINNING GAMES MAGAZINE

THE MAKING OF
DOUBLE DRAGON
HOW YOSHIHISA KISHIMOTO REDEFINED SCROLLING FIGHTERS



DIABLO: THE PC HIT THAT CHANGED A GENRE
HOW BLIZZARD'S LOVE LETTER TO ROGUE TRANSFORMED PC DUNGEON CRAWLERS

THE MAKING OF CITADEL
BEHIND THE SCENES OF THE CLASSIC BBC MICRO EXCLUSIVE AND ITS DISTINCTIVE SEQUEL

INSIDE THE ATARI 2600
As Atari celebrates its 40th anniversary, we reveal the creation of its 30-million-selling home console

"I'D NEVER DESIGNED A CHIP LIKE THAT BEFORE"
HAROLD LEE, ALLAN ALCORN AND JOE DECUIR REVISIT THE CREATION OF ATARI'S ICONIC SYSTEM

10 GAMES THAT DEFINED THE 2600
FROM PITFALL! TO PAC-MAN, THE GEMS AND TRASH THAT SHAPED ATARI'S MACHINE

JACK TRAMIEL
PAYING TRIBUTE TO THE MAN THAT BUILT COMMODORE

40 REASONS WHY ATARI CHANGED GAMING
HOW NOLAN BUSHNELL AND TED DABNEY REVOLUTIONISED VIDEOGAMES

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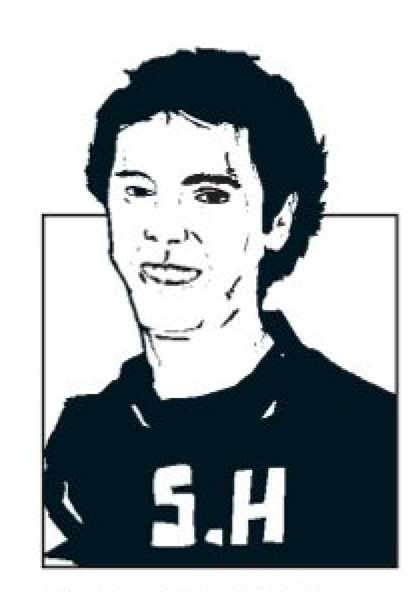

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THE RETROBATES FAVOURITE ATARI 2600 GAME



DARRAN JONES

I'm going for *Pitfall!*. Even now it's an amazingly addictive game that always manages to pull me back for one more game.
Expertise:
Juggling a beautiful wife, two gorgeous girls and an award-winning magazine
Currently playing:
Legend Of Grimrock
Favourite game of all time:
Strider



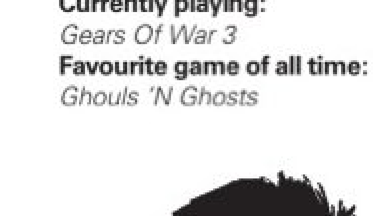
STUART HUNT

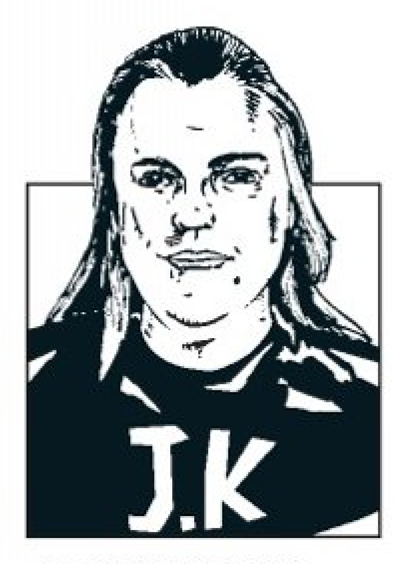
Easy one for me:
Yars' Revenge. The impressive things it got the 2600 to do still amaze me today.
Expertise:
Games with flying bits in them
Currently playing:
Kurushi
Favourite game of all time:
Kurushi



PAUL DAVIES

We were obsessed with *Phoenix* in the arcade. *Demon Attack*, from what I remember, was a lot like it. It had a metallic silver box too, which made it feel really cool.
Expertise:
Repeatedly banging my head against a brick wall.
Currently playing:
Gears Of War 3
Favourite game of all time:
Ghouls 'N Ghosts





JASON KELK

Vanguard comes a close second, but the 2600 game I've had most enjoyment from over the years has to be *Yars' Revenge*.
Expertise:
Being a homebrew hero
Currently playing:
Killer Cobra (Amstrad CPC)
Favourite game of all time:
Io



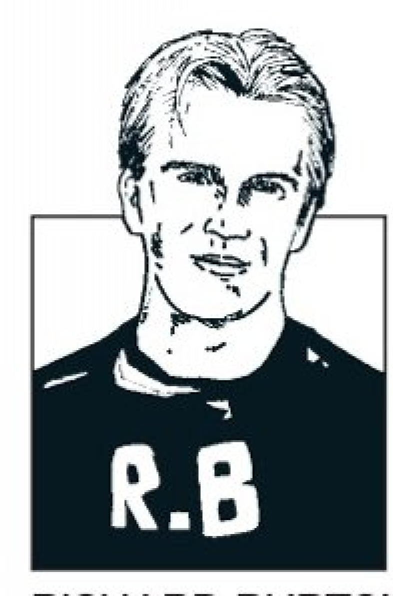
PAUL DRURY

H.E.R.O. if I'm on my own and *Warlords* if there are mates around. Though they may not be mates by the end of the game…
Expertise:
Death metal
Currently playing:
Unit 13
Favourite game of all time:
Sheep In Space



IAIN LEE

Pitfall! without a shadow of a doubt.
Expertise:
Pretending to be an American on Xbox Live
Currently playing:
Halo: Reach
Favourite game of all time:
Elite (BBC Model B version)



RICHARD BURTON

River Raid. As well as being technically brilliant, it's also a massive amount of fun to play.
Expertise:
Stuff and nonsense
Currently playing:
Robin Of The Wood
Favourite game of all time:
Manic Miner



If recent issues of Retro Gamer have taught me one thing, it's that I'm getting older. I can distinctly remember the first time I played on an Atari 2600. I'd visited my friend Andrew Bacon's house after Cubs, as my parents weren't in. "You're going to be amazed by this," he said, and put on *Space Invaders*. It might not have been as good as the arcade version I played in pubs while my dad gigged, but I was transfixed. *Pac-Man*, *Pitfall!* and an hour session on *Combat* followed, and that was it – I was hooked. I can remember that like it was yesterday, but it happened 30 years ago. Like I said, I'm getting older.

And yet despite my age, I'm still learning new things about older consoles and games. People often ask me why **Retro Gamer** is still going strong when other gaming magazines are declining, and I really do believe it's down to our content, which you just can't find anywhere else, even online.

This month is no different, with an exhaustive behind-the-scenes look at Atari's most important home console, and a world exclusive on the making of *Double Dragon*, easily one of the most important scrolling fighters ever made. There's much more, but don't take it from me. Find out for yourself.



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>> Load 103 Breathing new life into classic games

FEATURED

RETRO REVIVALS

In the hot seat this month…





Photography by Applebox Imaging





> "Its move to 3D was as significant as Zelda's" Samuel Roberts

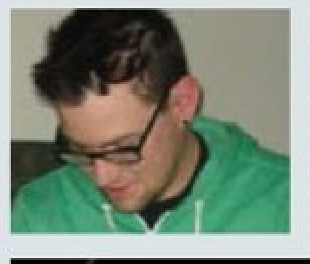




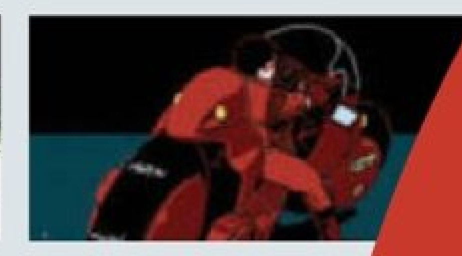












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>> GIVE US TWO MINUTES AND WE'LL GIVE YOU



>> It's a bittersweet month this issue. On the one hand, Kickstarter has helped breathe fresh new life into long forgotten franchises like Wasteland, but we've also lost Jack Tramiel, arguably one of gaming's most important icons

* CONTENTS



A LEGEND PASSES

WE PAY TRIBUTE TO THE MAN WHO SHAPED COMMODORE AND ATARI CORP

Jack Tramiel was a complicated man with many facets, each of which touched people in unique ways. To Americans he was the epitome of the American dream, an immigrant coming from nothing to become a captain of industry, a self-made success. To many across the world he was the man responsible for putting affordable computers under their fingers, launching entire generations of programmers, scientists, and engineers. In the eyes of his competitors he was a man to be feared, a tough-as-nails businessman who would often devastate his opponents and skilfully manipulate the odds in his company's favour. More importantly, to his family he was 'Dad' and 'Grandpa', providing for the next generation of Tramiels and ensuring them a better life than he himself had.

Jack was born Idek Tramiel on 13 December 1928 in Lodz, Poland. At the age of ten he became witness to the worst of mankind, as the Nazis invaded Poland and began their rounding up and eventual liquidation of the Jewish communities. Jack's family was initially sent to the Lodz ghetto. However, soon the order came to clear out the ghetto and the Tramiels were herded into railcars to move to the infamous Auschwitz concentration camp, where Jack was inspected by the maniacal Dr Josef Mengele, known as the Angel of Death. Though a child, he was considered healthy enough to be valuable for forced labour. He and his father were split off from the rest of the family and sent to Ahlem in the heart of Nazi Germany. His father was soon taken from him as well, dying in seemingly suspicious circumstances and leaving the young Jack alone.

Salvation came in the form of liberation by American troops, when the 84th Infantry Division crossed the Rhine in early April 1945 and liberated Jack and the others left alive in the camp. Wandering around Europe, working odd jobs to survive, Jack returned to Lodz and made the amazing discovery that his mother and other family members had survived. Trying to form some semblance of a stable life, he married a fellow concentration camp survivor,

> "Going into business for himself, he would turn his own small typewriter shop into an international powerhouse"



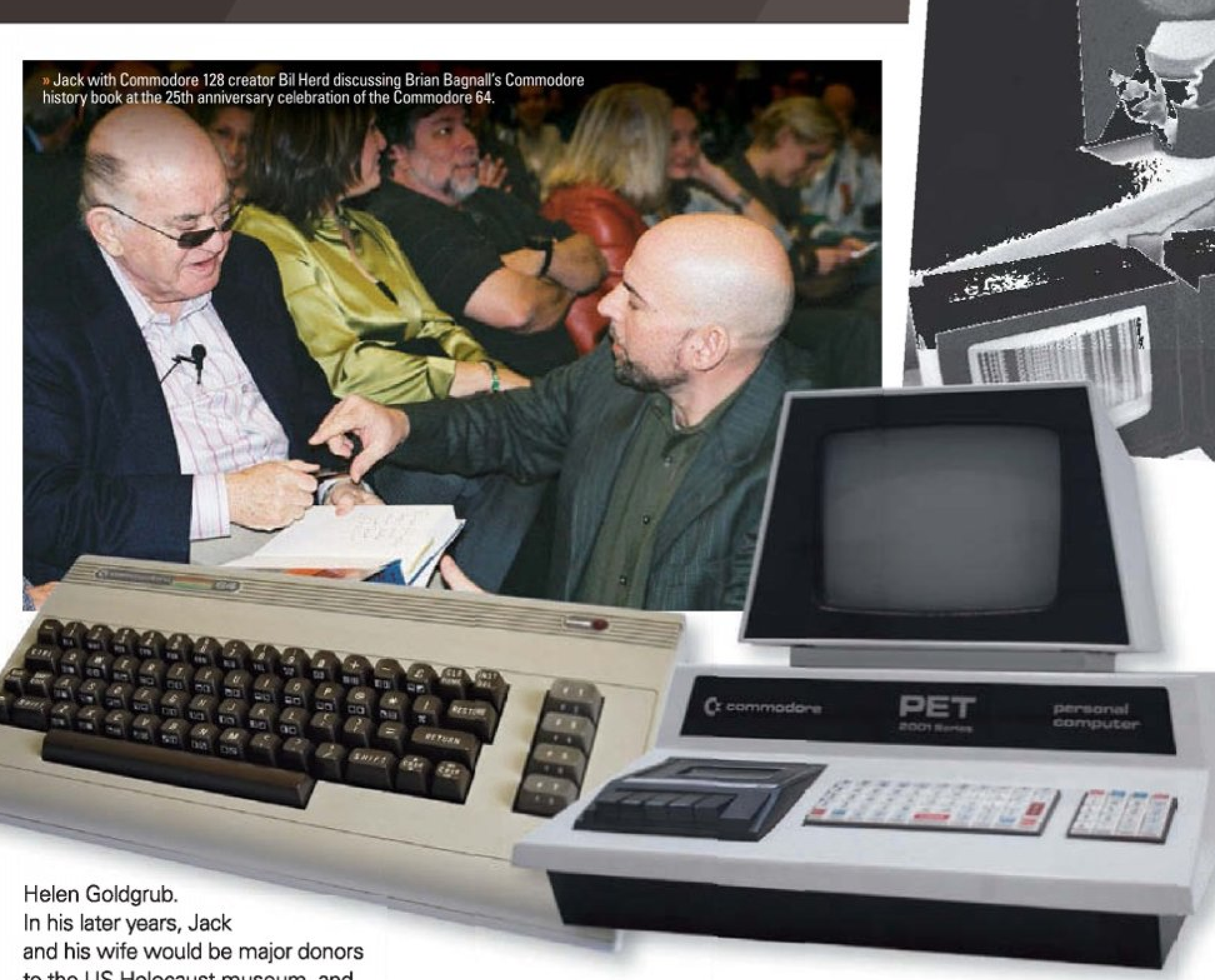
» Jack Tramiel's very first business was founded in typewriters. He soon moved to calculators and computers.


» Jack in 1982 with assistant secretary of the US Department of Education. Commodore had just donated 656 educational computer programs.

CELEBRATING 1 MILLION VIC-20 COMPUTER Commodore

» Jack with Commodore VIC-20 product manager, Michael Tomczyk, celebrating the millionth VIC-20 sold.





» Jack with Commodore 128 creator Bil Herd discussing Brian Bagnall's Commodore history book at the 25th anniversary celebration of the Commodore 64.

Helen Goldgrub.

In his later years, Jack and his wife would be major donors to the US Holocaust museum, and Jack would give talks to schools and fundraisers on the subject. "When I do one of those talks, I shake for a week," Jack once said.

The land of the people who liberated him, America, soon became his goal. After the horrors of the Holocaust, "I figured I could handle just about anything," he said in a 1998 *Forbes* article honouring five Holocaust survivors who came to America penniless and rose to live the American dream. Leaving his young bride behind, he came to America and worked as a repairman while learning English from watching movies. He then joined the US Army and brought Helen over, starting a family when his son, Sam, was born, followed by Leonard and Gary over the coming years.

Jack turned his experience repairing office equipment in the Army into a career by going to work for a typewriter repair shop. He soon showed his entrepreneurial side by negotiating a lucrative repair contract, using his Army connections, for several thousand machines. Not receiving a dime from the owner, Jack quit in the no-nonsense and brash fashion he'd become legendary for in the years to come. "I have no intention of working for people who have no brains," he told the owner.

Going into business for himself, he would turn his own small typewriter shop into an international powerhouse. He named his company Commodore, because he "wanted a name with a military name, and higher ranks like Admiral were already taken". Jack took on financial partner Irving Gould and moved the business to Silicon Valley. Entering the calculator industry and in heated competition with the Japanese, he soon had the rug pulled out from under him when his chip supplier, Texas Instruments, decided to enter the market as well, selling far below his cost.

Jack vowed he'd never again be at the mercy of a supplier, and when deciding to enter the new personal computer market in the mid-Seventies, he purchased microprocessor manufacturer MOS Technology outright. Jack's Commodore released a string of successful computers that followed Jack's vision of low-cost "computers for the masses and not the classes" – the PET, the VIC-20 and the Commodore 64.

After a clash with Gould, Jack resigned from the company he founded in early 1984. Years later he would state he wanted to grow the company and Gould didn't. Initially retiring and taking a world trip, he decided to return to the computer industry after hearing more and more reports that the Japanese were going to enter the market.

Eventually buying Atari Inc's consumer division from the struggling Warner Communications, Jack created Atari Corporation to market his next-generation computer, the Atari ST. He managed the heroic feat of wiping Atari's staggering debt off the books by 1987, retiring from the company the following year but remaining as chairman of its board. When his son, Sam, had a heart attack, Jack returned to oversee a reverse merger with disk drive manufacturer JTS before retiring permanently.

Jack died of heart failure on 8 April 2012, surrounded by his wife, sons and daughters-in-law, and five grandchildren. ✱

Paying Tribute to Tramiel

"I sat my son down and explained who JT was, what he did for people with home computers, how he made himself, how he was a survivor, and how my identity as an engineer and entrepreneur is intertwined with the business that he built. The best way I could think to honour him was to make sure the next generation knew."**– Bil Herd, former Commodore employee and creator of the Commodore 128**

"At the funeral the Rabbi said he had seen a collection of Holocaust survivor oral histories called *By Myself I'm A Book*. My dad was a set of volumes." **– Leonard Tramiel**

"Jack's passing released a stampede of memories from when we worked together. I'm thankful to him for giving me that shot so early in my career." **– Arnold Waldstein, former Atari Corp employee and current marketing consultant, business advisor and entrepreneur**

"Jack was a true mentor and friend to me. I will miss him." **– Richard Bernhardt, former director of legal and governmental affairs for Atari Corp and currently president and COO of Silicon Valley Investment Group**

"Jack was truly one of a kind. I'm really glad I had a chance to work for him." **– John Skruch, last man out at Atari Corporation**

"Much of the world is feeling Jack's loss. It's astonishing to think how much buying my first computer, a PET, changed the direction of my life." **– Brad Templeton, chairman of the Electronic Frontier Foundation and software design consultant at Google**

KICKSTARTED

HOW KICKSTARTER IS BREATHING LIFE INTO CLASSIC FRANCHISES

It all started with Tim Schafer. On 8 February, he revealed that he was planning to team up with *Monkey Island* co-creator Ron Gilbert to make a new point-and-click adventure game. All fans had to do was vote with their wallets to help raise the $400,000 needed to make the game. After the 35-day period, the project, ably backed by over 87,000 people, didn't just reach its target, but utterly smashed it, finishing with an astonishing $3.45 million once all contributions were totalled. It was an amazing achievement, but that was only the start of it. Schafer's brilliant idea of using Kickstarter, traditionally used to fund everything from indie movies to board games, to pay for a game saw a whole wave of other developers following suit.

One of the most exciting came when Brian Fargo announced that he was planning to release a sequel to his massively popular 1988 RPG, *Wasteland*. Initially it started off with a goal of $900,000, but clever marketing and incentive schemes from Fargo, the biggest being the revelation that Chris Avellone and Obsidian Entertainment would become involved if the funding hit $2.1 million, saw the project eventually raise $2,933,252. The good news for retro fans kept coming, however, with Replay Games announcing that it would be moving its remake of the original *Leisure Suit Larry* to Kickstarter; Harebrained Schemes' *Shadowrun Returns*, which hit its $400,000 goal in just 28 hours and added a further $1,436,447 for extra development; and an interesting music project by Chris Huelsbeck, who plans to release a lavish *Turrican* soundtrack anthology after hitting his $75,000 target. Sierra veteran Jane Jensen is also planning to launch a new game through Kickstarter.

Al Lowe, the creator of *Leisure Suit Larry*, is particularly happy with the service, telling us: "I think it's the greatest advancement in gaming in years! I think in the future this will be known as the Kickstarter Spring." He also explained how moving to Kickstarter, or starting a game through the site, is working so well. "It's to avoid the clutches of big game publishers whose goals seem to be to produce yet another copy of whatever game sold best last month. On Kickstarter, we can reach out directly to our fans and let them decide themselves which games they want to play, instead of letting some bean-counter assume he knows what they want."

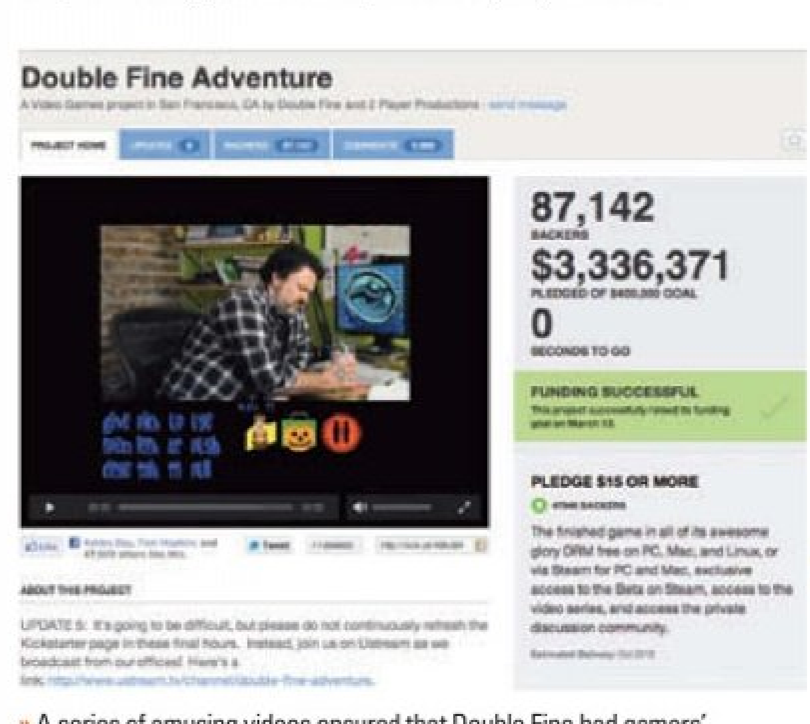


» Like many other developers, inXile is keeping up interest by regularly releasing new info about its upcoming game.



» A steady stream of *Wasteland 2* concept art has whetted the appetites of fans and supporters.

It's a valid point, as virtually every retro project that has been announced through Kickstarter has reached its target, suggesting that there is plenty of interest in genres that have long since been thought dead by current publishers. Of course, the real test now is going to be whether the games themselves come up to the high standards that the fans will be expecting. After all, Tim Schafer and Brian Fargo have created tremendous buzz about their new games, and while both men are giving constant updates, it's going to prove impossible to keep everyone happy. Nevertheless, it's certainly an interesting time for the industry, with some developers suggesting – and many gamers hoping – that this will be the start of even bigger and more ambitious projects. Imagine, for example, if Sega announced a brand new *Panzer Dragoon Saga*, or *Shenmue III*. Kickstarter has helped the chances of long-dead brands getting resurrected, and it appears ideal for making the games that the original fans want to play – something that recent *Shadowrun* and *Syndicate* revivals, for example, failed to capitalise on. Let's just hope the end products will be able to make good on all their promises. *



» A series of amusing videos ensured that Double Fine had gamers' attentions from the get go.



» Al Lowe is on the *Leisure Suit Larry* project and released a fun video looking back at the franchise's rich history.

What's coming

The retro franchises getting a new airing on Kickstarter

Double Fine Adventure

Developer: Double Fine
Original target: $400,000
Final amount: $3,336,371



Double Fine's game effortlessly sailed past its initial funding target in under 24 hours, thanks to the double-whammy pairing of point-and-click kings Tim Schafer and Ron Gilbert. The additional funds will go towards improving production and ensuring releases on a number of formats, including Windows, Mac and iOS. It's due early in 2013.

Wasteland 2

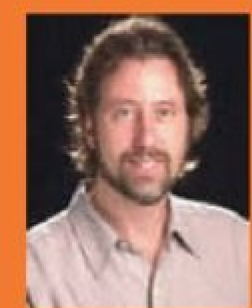
Developer: inXile Entertainment
Original target: $900,000
Final amount: $2,933,252



inXile's game has the potential to amaze. Its development team consists of several who worked on the original, along with Chris Avellone tweaking the script, and music composed by Mark Morgan (*Fallout* and *Fallout 2*). It will be co-developed by Obsidian Entertainment, and the team is aiming for an October 2013 release.

“ Schafer’s brilliant idea saw a whole wave of other developers following suit ”

WE SPEAK TO HAIRBRAINED SCHEMES’ JORDAN WEISMAN ABOUT SHADOWRUN RETURNS



Retro Gamer: Why choose Kickstarter?
JW: *Shadowrun Returns* is too large for us to do ourselves and too small for publishers to be interested in. Without Kickstarter and the game’s generous fans, it would not have come to be.

RG: Will you be copying the original 16-bit adventures in terms of style and approach?
JW: While the 16-bit games are inspirational, especially the SNES, *Shadowrun Returns* will be a very different game, offering the player more depth, such as more character choices, more development options, much richer multi-character tactical combat, and, of course, more stories, including the ones created by players using the editor that we will release.

RG: Did the response surprise you?
JW: We knew there were still fans out there but have been blown away by how many there are and their passion for *Shadowrun* and the financial support to make *Shadowrun Returns*.

RG: How much responsibility do you feel, knowing that fans have directly funded the project?
JW: It is a responsibility that we take extremely seriously, as the fans have illustrated not only their funding support but also hopes and dreams for the game. There is no way that this game can be every fans’ dream game, because those games are as unique as the people they came from, so our job is to stay focused on the concepts that the fans have responded so strongly to and hope that this common core meets or exceeds their expectations.

Shadowrun Returns

Developer: Harebrained Schemes
Original target: $400,000
Final amount: $1,836,447



Harebrained Schemes’ latest project is further proof that gamers are still hungry for traditional Western RPGs, even in these days of free-roaming adventures. It easily sailed past its initial pledge target and ended up crossing the finish line with over 30,000 backers. The project itself sounds extremely exciting, with the promised level editor effectively allowing gamers to make their own scenarios for others to play in. Colour us excited about this one.

Turrican Soundtrack Anthology

Developer: Chris Huelsbeck
Original target: $75,000
Final amount: TBC ($115,329 at time of writing)



This is particularly interesting, as it’s not a game, but rather a CD soundtrack collection. Chris Huelsbeck, who worked on the soundtrack for the original three *Turrican* games, is aiming to revisit the music from the classic trilogy with the help of a live orchestra. It will be based on the acclaimed soundtrack he released in 1993, and will feature nearly every piece of music from the three games, as well as brand new *Turrican* artwork, all in a nice-looking special edition package.

Leisure Suit Larry

Developer: Replay Games
Original target: $500,000
Final amount: $655,182



The remake of the first *Leisure Suit Larry* adventure has provoked controversy from some corners compared to other projects, as it’s not an original title, and it didn’t start off its development on Kickstarter. This wasn’t enough to stop it hitting its funding target, though. We’re not fussed about its origins anyway, as the original *Leisure Suit Larry* was great fun, and we can only imagine what full speech and updated graphics will bring to the overall experience.

retrocolumns

>> RETRO RECOLLECTIONS WITH CELEB IAIN LEE

Here's the bio...
Iain Lee is a freelance broadcaster who loves gaming, particularly retro gaming. He used to present the 11 O'Clock Show, but please don't hold that against him. You can find more information about Iain at **www.iainlee.com**



Hi there. My name's **Iain Lee**. You might remember me from Thumb Bandits and The 11 O'Clock Show, but now I'm here to confess my love for retro gaming



Airport entertainment

I've just spent four days in Amsterdam. I know what you're thinking; everybody thinks it when I tell them about my trip to the naughtiest city in Europe: 'Ooh, you lucky sod.'

Well, you are wrong. I am not a lucky sod. I have been working, and I've been working long days so I haven't had a chance to indulge in any of the naughtiness this godless place has to offer. Also, I wouldn't WANT to indulge, as I don't drink, I don't take drugs and I don't sleep with prostitutes. Any more. (Those last two words are a joke. Sort of.)

I'm at the airport, where it's just been announced my flight is going to be two hours late, meaning I now won't get home until 1am. In the great scheme of things, this isn't so bad.

What is bad is that I am bored. I've finished my Andrew Collins book from Oxfam and the battery on my Vita has run down. So now I am stuck here, without internet, lurking behind my laptop, hiding from the twat in the book shop who is wearing an 'I heart marijuana' T-shirt and staring at me with the glazed eyes of an idiot who has smoked too much weed, wondering why Ralf Little is at Amsterdam Airport.

There is literally nothing to do. I can't even find a rudimentary arcade to slide my soon-to-be-useless euro coins into. Surely airports still have arcades? To entertain myself, I have been trying to remember the film that featured two kids in an airport playing a hologram game with two monsters beating the crap out of each other. Any ideas? It wasn't *Total Recall*, was it? Maybe it was *Airplane II*? Whatever it was, why isn't that machine here? Now?

I recently spent much longer at a motorway service station than I ever wanted to. Let's be honest: five minutes is too long in those places, where they can literally make up prices on a whim. Bottle of water? Let's make it £5.29 today. Boom! Tiny Pringles? £12. What struck me was the sad little arcade section. I remember these places being havens from the adult world, an oasis among all things grown up and dull.

But this one was pitiful. It primarily consisted of one-armed bandits and one of those things where you put tuppence into a slot, in the vain hope that a load more tuppences will fall down a chute into your grubby mitts. They very rarely do, and even if you do get lucky, what have you got? A load of tuppences. Big wow.

The only thing you could actually describe as a game was a battered *Out Run*. (Ooh, is it one word? *OutRun*? Aaaarghh! I'm a charlatan! I don't know my classic games…) It's a superb game, but when was the last time that was actually used? Why don't service stations and airports have a 360 room? Or a PS3 room? Charge everyone £2 for ten minutes. That would work, wouldn't it?

It would certainly work now. With nothing better to do, I would spend a bloody fortune in there.

Even if you do get lucky, what have you got? A load of tuppences. Big wow

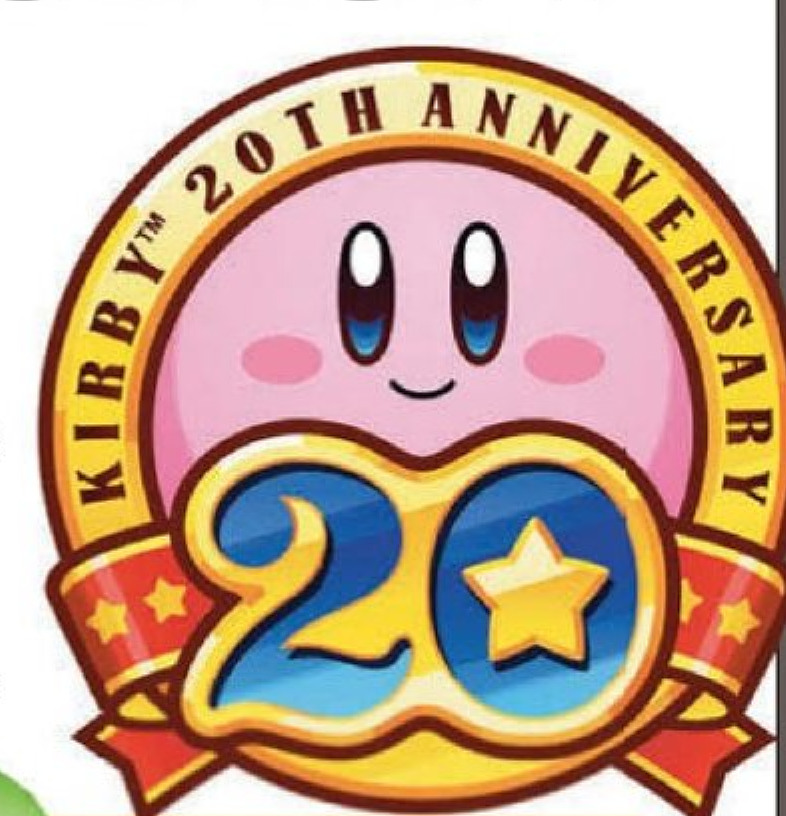
KIRB YOUR ENTHUSIASM

NINTENDO PREPARES KIRBY CELEBRATION

Link, Donkey Kong and Mario get all the loving, but Nintendo is ensuring that the same thing will happen when Kirby celebrates his 20th anniversary later this year. Nintendo recently confirmed that a brand new compilation of classic *Kirby* games would be released to celebrate two decades of the popular pink blob.

First created by Masahiro Sakurai, Kirby – his name is rumoured to be based on either the Kirby Company, which manufactures vacuum cleaners, or Nintendo lawyer John Kirby – made his debut in the Game Boy exclusive *Kirby's Dream Land*, and instantly caught the imagination of gamers thanks to his distinctive appearance and innovative ability to suck up enemies in order to use their abilities.

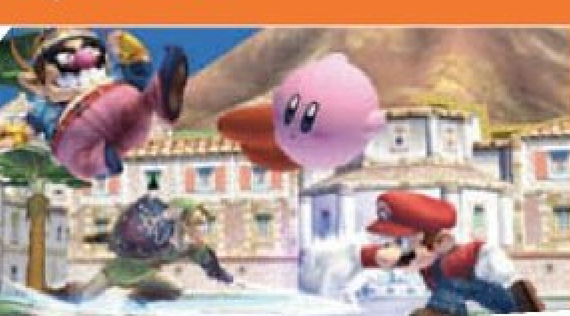
Numerous games followed, and like Mario before him, Kirby began to appear in various offshoots that ranged from mini-games to crazy golf and pinball, while still finding time for regular appearances in the *Super Smash Bros* series. Nintendo is remaining tight-lipped about what will be appearing on the compilation, but we're betting that, like *Super Mario All-Stars 25th Anniversary Edition*, it will be a selection of NES and SNES releases. While Nintendo has revealed that the pack will definitely be appearing on the Wii, it's unclear if a version of Kirby's portable hits will be released for the 3DS. Needless to say, whatever ends up being released, you can expect a definitive review later on in the year. *

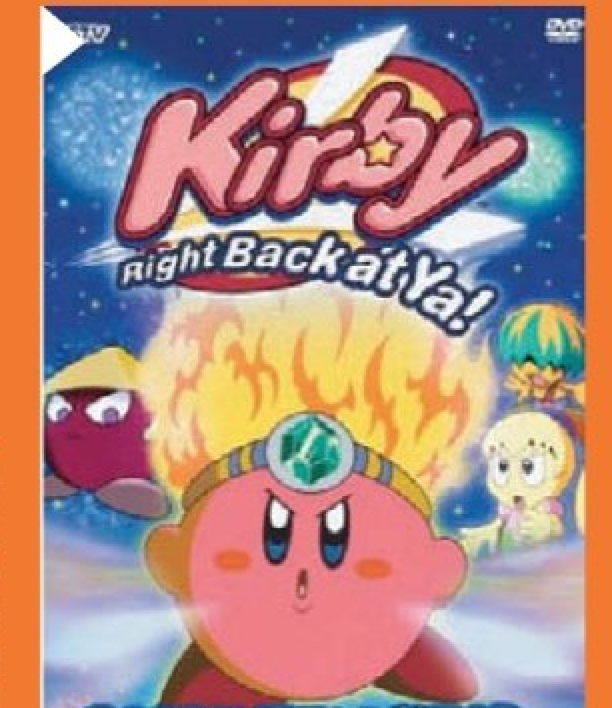


5 fascinating facts about Kirby

He had his own TV show
Kirby: Right Back At Ya! ran for 100 episodes and was described by the director as a 'life drama'. Selected episodes were made available to watch on the Wii.

He's a mean fighter
Kirby has appeared in the *Super Smash Bros* franchise since it made its debut on the N64. He's a firm favourite with fans thanks to his insane special moves.





He's good with figures
Kirby's popularity should not be underestimated. His games have sold over 30 million units, outselling the likes of *Mortal Kombat*, *Mega Man*, *Castlevania*, *Lemmings*, *Frogger* and *Diablo*.

He's versatile
Kirby doesn't just stick to platformers, and has appeared in numerous spin-offs. *Kirby's Block Ball* was a take on *Breakout*, while *Kirby Tilt 'N' Tumble* made use of motion sensors.



He's nothing to do with Miyamoto
Unlike many of Nintendo's other mascots, Kirby wasn't the creation of Shigeru Miyamoto. Masahiro Sakurai was working at HAL Laboratory when he came up with the iconic Kirby design.



MORE MARIO

NINTENDO UNVEILS NEW SUPER MARIO BROS 2



» [3DS] Yep, it definitely looks like a sequel to *New Super Mario Bros*.

After a shaky start, things are finally looking good for Nintendo's 3DS. Both *Mario Kart 7* and *Super Mario 3D Land* have been huge hitters for the console, achieving both commercial and critical success, and now Nintendo has announced that a brand new platformer will be released later on in the year.

New Super Mario Bros 2 is set for release during the summer months and will be a direct sequel to the massively popular Nintendo DS original, which ended up selling over 19 million units.

One of the biggest reveals, and the one generating most excitement around fans, is the return of the Super Leaf. Unlike its use in *Super Mario 3D Land*, this variant will be more like the version found in the all-time classic that is *Super Mario Bros 3*, giving Mario the ability to fly through the air and no doubt uncover a wealth of secrets. Little other information has been revealed about gameplay so far, but Nintendo has confirmed that Luigi will once again be available as a playable character. Whether it will utilise the 3DS's wireless functions to introduce the multiplayer mode featured in *New Super Mario Bros Wii* remains to be seen.

Nintendo is currently aiming for a worldwide release in August. *

retrocolumns

>> PAUL DAVIES GIVES HIS VIEWS ON THE RETRO WORLD

Here's my bio…
In 1992 I started out on *Mean Machines Sega* and *Nintendo Magazine System*. In 1995 I became editor of *C&VG*. I led the *C&VG* website from 1998 until Christmas 2000, then I left journalism to be concept design manager at Criterion Games. I returned to journalism in 2002 and from 2005 I've been running my own company, Unlikely Hero.



Alas, poor Gilius!

Did anyone here read the *Golden Axe* novel? I haven't, nor do I ever intend to. That said…

The game fans we're going to talk about this month are ones that wished they were born with a cartridge slot for a mouth and a SCART lead for a todger. It may even be likely that some of these people have had the operation: "I was born a Mega Drive."

1993 is fairly recent retro history, a period that made most people I knew feel like the cats that got all the cream. Games were awesome, way beyond *Manic Miner* and – snigger – *Gorf*. It was time to invent transmedia: phone-in tips lines, VHS game guides, and the videogame novella. Oh, man.

I'm going to get slammed by **Retro Gamer** readers for not ever having glanced beyond the back page of cover-mounted books that arrived with *Sega Power*. It was bad enough trying to imagine what went on inside *Golden Axe: A Novel Based On The Best Selling Sega Game*.

"'Peace to the land is my duty!' bellowed Gilius. He charged into battle, clobbering lavender-clad enemies that flashed before vanishing. 'Go!' said the arrow above his head."

Apparently it was the same hero within books based on *Road Rash*, *Super Monaco GP* and *Desert Strike*. Again, and I am honestly sorry, I didn't read them so I cannot say whether or not this was a saga of a war veteran trying his hand at racing, or a driver that adapted surprisingly well to flying Apache helicopters. This is one dream that I did not get the chance to share.

Oh, I didn't mean Gilius the dwarf at the wheel; probably some other made-up dude. Sorry about the confusion… I'm writing in a bit of a hurry. Got something urgent I need to get back to. Could've been Gilius, though. He might have time-travelled. Yeah, wow…

Anyway, the *Mean Machines* gang passed many evenings guffawing into Guinness and choking on cheesy chips, quoting directly from gaming novellas that had eventually spread to *Sega Force*. But now I feel ashamed. What a rotten bigot.

See, I flippin' love videogame novels now. Admittedly they're being written by Greg Bear and Karen Traviss instead of staff writers barely out of short pants surviving off Jelly Belly jelly beans and cola. But I don't care how many times Master Chief enters a hatch, spies a few Grunts, and tosses a plasma grenade before leaping over a Commando Elite class to blow its legs off. I'm in there.

Okay, the Library bit in *Halo: The Flood* was an exercise in pulp fiction déjà vu – props to Bill Dietz for transforming one of the shittiest sequences in gaming into some kind of drama. But listen, kids: the Drew Karpyshyn stuff expanding on *Mass Effect* and Karen Traviss' *Gears Of War* tales are awesome.

These new books could use a few game-solving hints and tips, though. They definitely got that part right at *Sega Power* Towers. "'How on Sera did you evade that 'nade, sir?' squealed the rookie, clearly impressed. 'I have my look sensitivity set to 12, instead of default. You should try it some time. Might save your life,' glowered Fenix. 'Now get back to your post.'"

The Mean Machines gang passed many evenings quoting gaming novellas


» [3DS] The appearance of Scrooge McDuck will no doubt fuel rumours of a new *DuckTales* game.

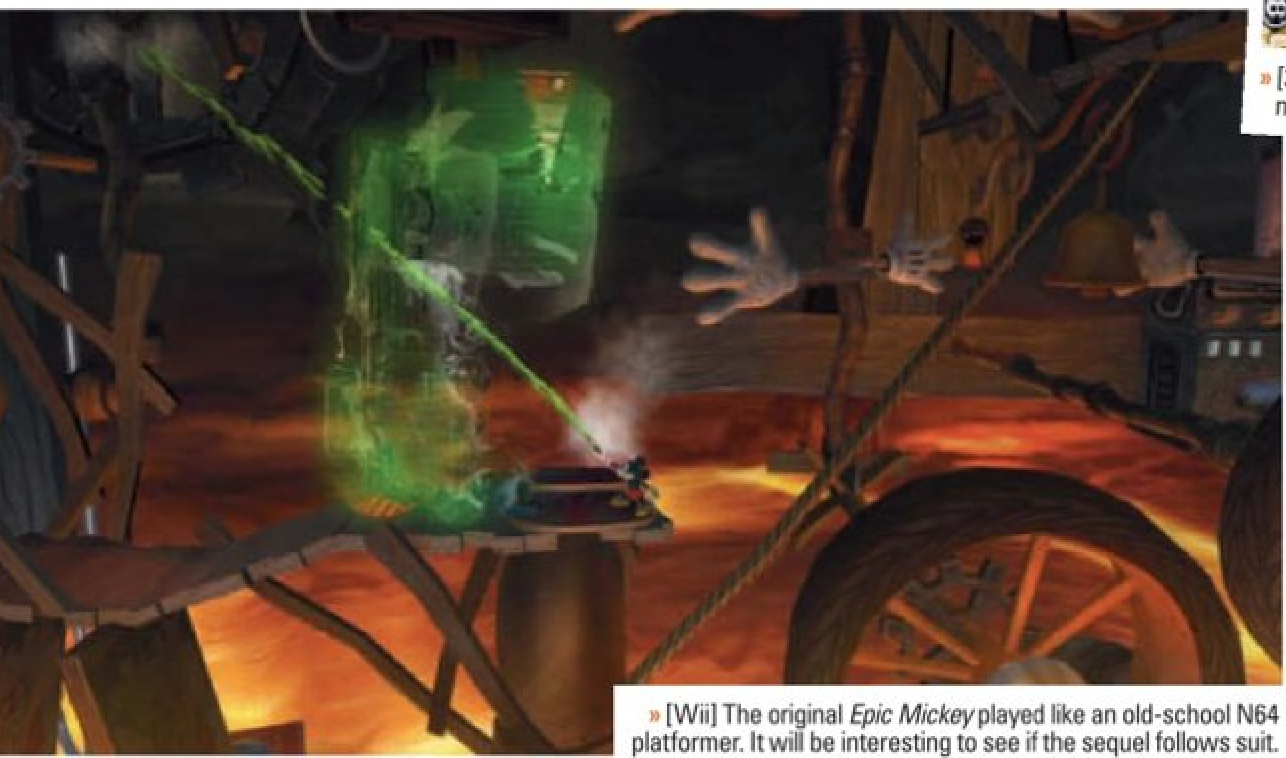
AN EPIC RETURN

HIT MEGA DRIVE GAME TO RECEIVE A VIDEOGAME TRIBUTE

You can't keep a good mouse down. *Epic Mickey* might not have received the critical acclaim that Disney and creator Warren Spector were hoping for, but it did do the business at retail. As a result, Disney has announced two brand new Mickey Mouse games, which will be released later on in the year.

The first is *Epic Mickey 2: The Power Of Two*, which, for the first time, will allow you to play as either Mickey or Oswald the Lucky Rabbit, who was an important character in the first game. Following on from the original adventure, *The Power Of Two* once again sees Mickey adventuring in the Wasteland, the alternate universe comprising 80 years of forgotten Disney characters. It's also being dubbed the first videogame musical, something we're not sure whether to be scared or excited about.

While we're a little cautious about *The Power Of Two*, we're practically giddy with excitement about Disney's other *Mickey Mouse* game, mainly because it's being trumpeted as the spiritual successor to *Castle Of Illusion*, arguably the greatest *Mickey Mouse* game ever made.


» [Wii] The original *Epic Mickey* played like an old-school N64 platformer. It will be interesting to see if the sequel follows suit.

Epic Mickey: Power Of Illusion will be released on the 3DS. It focuses on the Castle of Illusion from the original Mega Drive game, but it has fallen into chaos since Mizrabel, the evil witch, was trapped there.

"The original *Castle Of Illusion* changed the face of videogaming by allowing players to play as Mickey Mouse in a side-scrolling adventure full of dynamic environments," said Warren Spector, vice president and creative director at Junction Point. "We're honoured to be able to pay tribute to this classic videogame by creating a title that truly takes advantage of the unique capabilities of the Nintendo 3DS, putting the magic of Disney and the historic *Castle Of Illusion* in the palm of your hands."

While *Power Of Illusion* looks more like one of Mickey's older SNES adventures, we're still extremely keen to get our hands on it due to the involvement of DreamRift, which created *Monster Tale* and has roots in the rather excellent *Henry Hatsworth In The Puzzling Adventure*. ✱

2D Good, 3D Bad

The videogame franchises that faltered when entering the third dimension

Metal Slug

The 2D Outing
An utterly frenetic gung-ho blaster that was packed with humour, exciting gunplay and stunning animation.

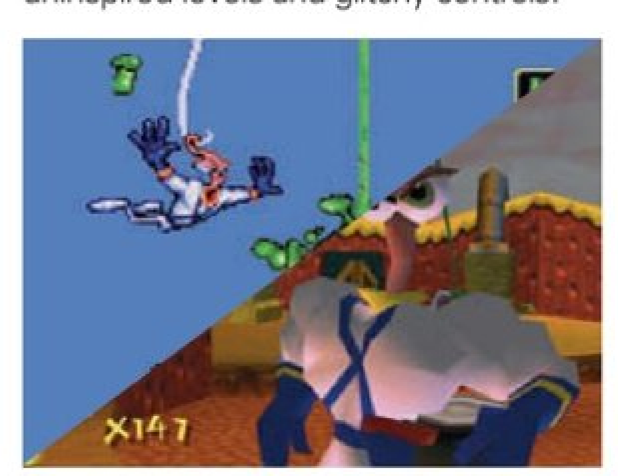
The 3D Outing
Ugly, super-deformed characters; dull, plodding level design; and murky-looking visuals had fans screaming for another 2D adventure.



Earthworm Jim

The 2D Outing
Beautiful graphics, a great central character and highly imaginative level design saw Jim launching cows and fighting crows.

The 3D Outing
Jim's transition to 3D was not a good one thanks to sluggish animation, uninspired levels and glitchy controls.



Final Fight

The 2D Outing
Capcom's mighty beat-'em-up effortlessly built on the success of *Double Dragon* and remains a stone-cold classic to this day.

The 3D Outing
Final Fight: Streetwise was an absolute travesty whose memory needs to be wiped off the face of the earth.



THE VAULT

TREASURES FROM THE RETRO CHEST

TREASURE OF THE MONTH

Namco Special Edition Fight Stick

- **RRP:** $189.99 (approx £118)
- **Buy it from:** www.namcobandaigames.com

This month's treasure is sure to grab the attention of hardcore fighting fans out there. These stylish black Namco PS3 fight sticks from Mad Catz are a limited edition of just 1,000 units, making them rather collectable. Each stick is individually numbered and constructed from authentic Japanese-style Sanwa Denshi components. Its eight-button layout features turbo functionality, lockout switches to prevent accidental button-hitting, and a 13-foot USB cable, among other features. The build quality and styling of the sticks do look superb, which explains why they aren't cheap, but there's no better way to experience your favourite fighting games.



Pac-Man Wall Clock

- **RRP:** £7.99
- **Buy it from:** www.amazon.co.uk

Pac-Man doesn't really require a clock. In a life spent mostly on the run, he's far too busy looking over his round yellow shoulder for even a cursory glance to see what the big and small hands are doing. This timepiece thus serves as a reminder that time is short and you must make the most of it. Carpe diem, as Bicentennial Man once said in that movie.





Shao Khalvin T-shirt

- **RRP:** $24 (approx £15)
- **Buy it from:** www.meatbun.us

We're picking up a strong whiff of irony from this shirt, which gives two of the gruffest bosses from one of the most violent fighting games a cutesy cartoon makeover. Depicting a youthful Shao Kahn and his feline bodyguard Kintaro as a cuddly stuffed animal, this is how *Mortal Kombat* would have looked if it had been created by *Calvin And Hobbes* creator Bill Watterson.



Mortal Kombat Game Canvas Art Print

- **RRP:** £34.99
- **Buy it from:** www.amazon.co.uk

Our *Mortal Kombat* love train chugs along for one more stop this month with this piece of wall art. It shows Sub-Zero and Kano in the Courtyard stage of the first *Mortal Kombat*, preparing to tear each other's throats out the second the word 'fight' scarpers. Though a bit pricey, we like the concept enough to want to see more fighting stages made into oblong-shaped canvas art.

SimCity T-shirt

- **RRP:** £15.95
- **Buy it from:** www.retrogt.com

Never in our lifetimes did we believe this day would come. Yes, your eyes don't lie: this is a *SimCity* T-shirt. The epitome of geek retro gaming T-shirt chic, it's like getting a tattoo of a scientific calculator on your inside bottom lip, but less painful. Emblazoned with a SimCity Electric Co logo, it's a subtle homage that in certain parts of the world could actually pass as a trendy non-videogame shirt.





A MOMENT WITH… Lennie Moore

The composer on the cult hit Outcast, a title that showcased his impressive musical talent, talks his work and game music with Denis Murphy

Who is Lennie Moore?

First exploding onto the gaming scene in 1999 with his score for *Outcast*, Lennie Moore is an accomplished composer, conductor and orchestrator. Initially composing for TV, Lennie has moved into games, working on such titles as *Sonic And The Black Knight*, *Halo: Anniversary* and *Star Wars: The Old Republic*.

Retro Gamer: When growing up, were you a gamer yourself?
Lennie Moore: When I was a kid, it was the days of coin-op arcades. We're talking *Pong*, *Missile Command*, *Space Invaders*, *Asteroids*, and yes, I blew a lot of quarters! I remember when *Galaga* came out; that was one of the first games I saw where you could see a technology bump with smoother animations on a colour screen. I was amazed and infatuated with computers and technology, and still am.

RG: How did you get the *Outcast* job?
LM: Appeal [developer of *Outcast*] posted a notice on a newsgroup saying they were looking for a Hollywood composer to do an orchestral score for their videogame. I was interested and sent them some really dark atom bomb music I had recorded with a live orchestra. They chose me, for which I'm forever grateful.

RG: Take us through the creative process you underwent for *Outcast*.
LM: I wanted a central theme that tied the whole experience together. For me, the game was about adventure, and my main motif was centred around this thought. I developed this theme and intertwined it with themes I created for each region in the game. I also chose a specific harmonic language that would be followed throughout the entire score, thus giving the player a sense of connectivity between locations travelled within the game.

RG: Do you think a full orchestra was vital for *Outcast*?
LM: People forget orchestral samples sounded like junk compared to how they sound now, which is still not near what a live orchestra can do with the same notes. I believe the timing of that score being done with a live ensemble was vital to the game industry and the charm of *Outcast*.

RG: What instruments did you utilise?
LM: An 81-piece symphony orchestra, 24-voice choir, plus Armenian duduk, udu drum, Egyptian tambourine, talking drum and dumbek.

RG: Were you hired for the cancelled sequel, *Outcast 2: Lost Paradise*?
LM: I talked with my friends at Appeal about it while they were still in pre-production. We had discussed working together and I was coming up with ideas on how to approach this next chapter, but [it] was cancelled way before it would have been time to bring me into the project.

RG: Do you feel that videogame scores are starting to rival film scores?
LM: I hate making comparisons to film because it makes it seem that videogames are the bastard child of the entertainment industry. I think some of the most compelling modern music is being created for games. There are exceptional composers in this industry doing amazing work, and they should be recognised as some of the top artists of our time. If anything, I'd agree that the production quality is beginning to rival film, and that's surprising because we don't get film composer money! I'm looking forward to that day. *

"There are composers in this industry that should be recognised as some of the top artists of our time"


» [PC] Lennie's music adds massively to *Outcast*'s overall atmosphere, giving it a huge, epic scope.


» [Xbox 360] Lennie's most recent videogame work was the soundtrack for *Halo: Combat Evolved Anniversary*.

25 May – 21 June

retrodiary

» A month of retro events both past and present

26 May 1994
■ The refreshingly oddball *ClayFighter* is released on the SNES in Europe and introduces us to Bad Mr Frosty and Ickybod Clay.



30 May 2003
■ *Resident Evil 2*, Capcom's atmospheric survival horror game, is released in Europe on Nintendo's GameCube.



1 June 1983
■ Two plumbers, two moustaches and a whole lot of pest extermination feature with the arrival of *Mario Bros*, the arcade coin-op.



1 June 2001
■ *18 Wheeler*, Sega's trucking game, comes out on the Dreamcast in the UK. You're in my way, greenhorn!



5 June 1980
■ *Flagman*, the second in Nintendo's new Game & Watch series of handheld games, is released.



5 June 1977
■ The first Apple II computers go on sale in America.



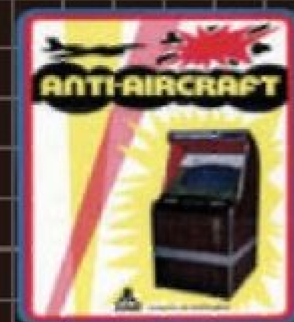
4 June 1992
■ Irem releases *Super R-Type* for European SNES owners. Japan had it almost a whole year earlier.



2 June 1978
■ Taito releases *Space Invaders* into arcades. The golden age of arcade videogaming has begun…



5-7 June 2012
■ The Electronic Entertainment Expo (E3) is being held at the Los Angeles Convention Center.



6 June 1975
■ One of Atari's earlier arcade games, *Anti-Aircraft*, is released. Blow planes out of the sky with your great big cannon. Nice.



8 June 1981
■ Atari releases the insect-blasting coin-op, *Centipede*, into arcades. The fast-paced, trackball-controlled game is a massive hit.



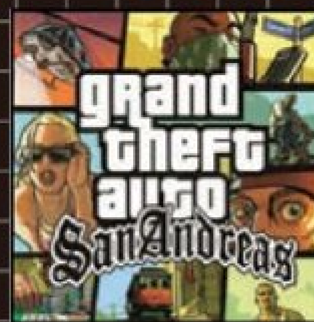
9 June 2000
■ *Zombie Revenge*, a spin-off game to the *House Of The Dead* series, is released in the UK on the Dreamcast.



14 June 2003
■ Cool Spot, the mascot for the soft drink 7 Up, gets his own game on the Mega Drive, which is initially released in Europe.



11 June 2004
■ Also released in Europe by Rockstar is *Red Dead Revolver* for the PS2 and Xbox, the first in the *Red Dead* series.



10 June 2005
■ Rockstar Games releases *Grand Theft Auto: San Andreas* on the Xbox and PC across Europe.



10 June 1992
■ Capcom's much-anticipated *Street Fighter II* makes its SNES debut in Japan, becoming the first 16-megabit cartridge for the system.



15 June 2012
■ Konami will be releasing its *Metal Gear Solid HD Collection* on Vita. It won't include *Metal Gear Solid: Peace Walker* though.



19 June 1983
■ *Dragon's Lair*, the LaserDisc coin-op, hits the arcades. Jaw-dropping graphics were tempered by yawn-inducing gameplay.



20 June 2003
■ Nintendo and Treasure team up to release *Wario World* in Europe on the GameCube.



21 June 2012
■ New issue of **Retro Gamer** hits the streets



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BACK TO THE EIGHTIES

CHARTS

NOV 1981

ACORN ATOM

1 Space Invaders (Bug-Byte)
2 Polecat (A & F Software)
3 3D Asteroids (Program Power)
4 UFO Bomber (Bug-Byte)
5 Lunar Lander (Program Power)

» [Arcade] *Breakout* meets *Pong* in a four-player head-to-head castle-bashing exercise. Fantastic stuff.

» [Intellivision] Mattel's tie-in deal with TSR ensured a couple of *D&D* videogames and, strangely, a *D&D* tabletop game.

THE LATEST NEWS FROM NOVEMBER 1981

NOVEMBER 1981 – C&VG, EG and CGW debut, Sinclair goes thermal, D&D goes small screen, and The Quest For The Rings throws down the Gauntlet while Bug-Byte shows heart. Richard Burton wants to be kinged in Backgammon…

It was the early, pioneering days of the UK home computer market, and to complement the burgeoning interest in gaming and computing, EMAP published its debut issue of what would become a staple magazine for many gamers for the foreseeable future. *Computer & Video Games* issue 1 had hit the newsstands.

Although top-heavy with type-in listings, it was essential reading for the latest news and product information and quickly became a must-have purchase for gamers and computer kit builders alike. Early indications estimated the readership for the debut issue to be around 60,000.

Over in America, an equally influential magazine was also making its first appearance. *Electronic Games*, founded by Bill Kunkel and Frank Laney Jr, was a glossy explosion of colour covering all the big gaming systems of the time as well as handheld and tabletop games. It was a breath of fresh air, being the first dedicated videogaming magazine in the US, where until then the subject had been restricted to columns in other magazines.

In fact, *Electronic Games* began in such a way, with a regular column called 'Arcade Alley' written by Kunkel and Laney for *Video* magazine. Thankfully, they took the decision to break away and publish their own periodical and never looked back.

In quite a month for videogames publishing, another title was debuting, once again in America: *Computer Gaming World*. The bimonthly magazine covered popular home computer systems at that time. Despite being very text-heavy with little colour and no screenshots, the magazine's coverage of games for the TRS-80, Atari 400 and Apple II ensured strong sales.



» The first issue of *Computer & Video Games*. Computer and console gaming finally got a magazine dedicated to the cause…

» The giants of US gaming magazines, *Computer Gaming World* and *Electronic Games*, were both launched this month.

Jeff Minter, the hairiest man this side of Nepal and founder of Llamasoft, made his gaming breakthrough. Having purchased a ZX80 and later upgraded it to a ZX81, the Yak developed three games for the ZX80/81: *Deflex*, *3D3D* and *Centipede*.

The first ZX Microfair, a gathering of Sinclair computer enthusiasts and traders alike, took place on 26 September 1981. A few hundred people were expected, but around 5,000 turned up. Jeff Minter was one visitor to the show that day and went along armed with a tape demoing his work. At the DK'Tronics stand, a chat with the owner led to the Yak reaching for his tape, and an immediate interest in purchasing these games followed. DK'Tronics would also publish Jeff's first Commodore VIC-20 game, *Rox*.



ZX81	
1	QS Defender (Quicksilva)
2	Star Trek (Silversoft)
3	Space Intruders (Macronics)
4	Planet Lander (Hewson Consultants)
5	Air Traffic Control (C Tech)

APPLE II	
1	Castle Wolfenstein (Muse)
2	Gorgon (Sirius)
3	Raster Blaster (BudgeCo)
4	Alien Typhoon (Star Craft)
5	Space Eggs (Sirius Software)

MUSIC	
1	Under Pressure (Queen & David Bowie)
2	Begin The Beguine (Volva A Empezar) (Julio Iglesias)
3	Every Little Thing She Does Is Magic (Police)
4	Happy Birthday (Altered Images)
5	It's My Party (Dave Stewart with Barbara Gaskin)

NOVEMBER 1981 NEWS

29 November saw the death of Hollywood actress Natalie Wood. Born Natalia Nikolaevna Zakharenko, she was best known for her roles in *Miracle On 34th Street*, *West Side Story* and *Rebel Without A Cause*. She fell overboard and drowned on a boating trip with husband Robert Wagner and friend Christopher Walken. How she fell into the water was never uncovered, although she had taken alcohol, painkillers and a seasickness remedy, which may have made the effects of alcohol more pronounced. She was also covered in bruises and had injuries to her face and arms when retrieved. The coroner ruled that Wood had died due to accidental drowning.

On 6 November, the British fantasy movie *Time Bandits* premiered in America. It tells the story of the 11-year-old Kevin and six dwarves, who he meets after they find a hole in time in his bedroom. The dwarves have the only map of these holes and find themselves being pursued by the Supreme Being, who wants it back. They meet Robin Hood (John Cleese) and King Agamemnon (Sean Connery), but the Fortress of Ultimate Darkness and the 'Most Fabulous Object in the World' beckon. Oh, and Evil lives there too… and he wants the map…



» *Time Bandits* did very well at the US box office, earning $40 million.

4 November brought the US TV premiere of *The Fall Guy*, starring Lee Majors as the stuntman/bounty hunter Colt Seavers in an action-adventure series. Majors also 'sang' the theme tune, *Unknown Stuntman*. *The Fall Guy* ran for 113 episodes over five seasons.

DK'Tronics wasted no time in getting the three games published, and they were advertised in *C&VG* issue 1. Although Llamasoft hadn't officially been formed, the Yak's first games were on sale and the path to software developer legend had begun…

Sinclair finally released the fire hazard known as the Sinclair Printer for the ZX81 in time for Christmas, presumably with the potential to roast your chestnuts as well as printing some ZX81 listings. This thermal printer used rolls of aluminised paper that turned black when heat was applied to its surface and could be yours for just £49.95.

Mattel announced that it had procured a licensing deal with TSR Hobbies to release *Dungeons & Dragons* games on its Intellivision console. Two *Advanced Dungeons & Dragons* titles would follow in the new year: *Cloudy Mountain* and *Treasure Of Tarmin*. Both were arcade-style quest games, with *Treasure Of Tarmin* more detailed graphically but less playable than *Cloudy Mountain*. However, both sold well.

The Magnavox Odyssey 2 (or Videopac G7000 in Europe when released) was also delving into fighting fantasy gaming with the release of *The Quest For The Rings*. This unusual board game/videogame hybrid arrived in lavish packaging complete with tokens, counters, game board, keyboard overlay and cartridge. Your task was to find ten rings hidden deep inside the mazes, but first you must choose your character from a selection of four: Wizard, Warrior, Changeling or Phantom. It was also a co-operative game, so selecting the right character combination for your quest would be important given that they had various unique qualities.

Then there was the Ringmaster… This player controlled the board game element and attempted to prevent you from finding the rings. With a defined number of turns to uncover them and your Ringmaster friend generally causing you much grief, the game promised much.

Sadly, in board game mode it was a long, tiresome affair. However you could dispense with the board and your Ringmaster – presumably relegated to fetching tea and custard creams – and play a co-operative arcade quest, which also kept individual scores.

» [Odyssey 2] *The Quest For The Rings* was an ambitious and interesting project that only partly worked.

The Quest For The Rings never set the world on fire, but it contained several elements that fans of *Gauntlet*, which was four years away, would appreciate.

Hitting the arcades of the UK was *Warlords*, a *Breakout* variant that allowed simultaneous four-player gaming. Each corner of the screen housed a castle. Your task was to demolish your opponent's stronghold brick by brick and then hit the warlord inside. Fireballs could be deflected or caught and flung at an opposing castle. *Warlords* was representative of all that was good with early arcade gaming, offering simplistic graphics but outstanding four-player gameplay.

A sad but heartening story concerned Bug-Byte's release of *Backgammon* for the VIC-20. The programmer was 16-year-old Kevan Earl, who wrote the game while he was receiving treatment for leukaemia. Once completed, Kevan approached Bug-Byte with a view to marketing it, which it accepted and an agreement was signed. Three days later, Kevan died.

Kevan's father requested that his son's 20 per cent royalties be sent to a leukaemia research charity. Bug-Byte agreed, but upped Kevan's cut to 50 per cent. Nice.

THIS MONTH IN…

ELECTRONIC GAMES

With the Intellivision new on the scene, Mattel's advertising took on Atari's VCS head-on with graphical comparisons between similar games. Comparing soccer games, the Intellivision text stated: "Notice the Intellivision players. They've got arms and legs like real players." That would indeed be a plus point…



YOUR COMPUTER

YC reviewed the relaunched TI-99/4 computer and loathed it. The first sentence of the review called it "a computer which seems to have missed its market" and discouraged readers from buying it for being "appallingly slow", prophesising that it "wouldn't make an impact on the British computer scene". Bang on.



COMPUTER & VIDEO GAMES

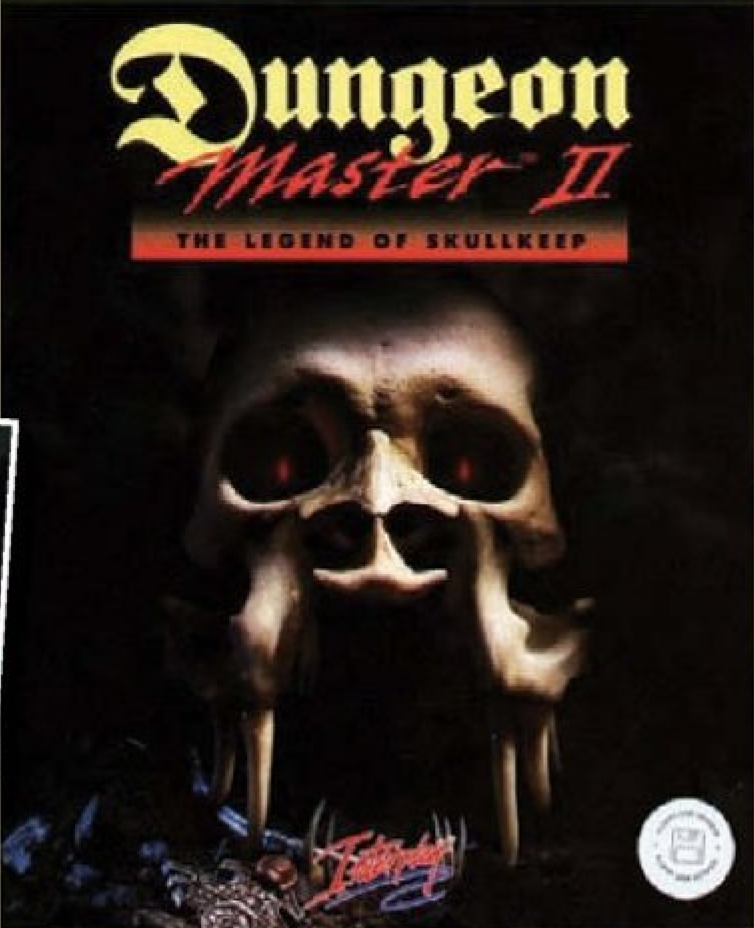
C&VG kindly offered some electronic gaming gift ideas for the forthcoming Christmas. There was a look at *Super Simon*, a deluxe two-player version of the colour and sound matching game, CGL's tabletop game *Earth Invaders*, the latest Game & Watch games, and an electronic version of the peg game *Mastermind*.





» [PC] *Star Wars* meets *Doom* in a very playable first-person shooter. The Force is strong with this one…


» [PC] *Dungeon Master* was brilliant, atmospheric and original. *Dungeon Master II* wasn't…



FEBRUARY 1995 – Super Mario 64 hopes, PC Dark Forces arrive, Ridge Racer takes out Gale Racer, and Rayman is ray of platform sunshine while Dungeon Master and Skidmarks return for second helpings. Richard Burton has his own Super Skidmarks…

THE LATEST NEWS FROM FEBRUARY 1995

With the finer details of Nintendo's new console, the Ultra 64, still clouded by rumour, conjecture and hyperbole, the big news was that videogame designer Shigeru Miyamoto was to head the team for the rumoured Ultra 64 launch title, *Super Mario 64*.

Miyamoto, who created such franchises as *Donkey Kong* and *Star Fox*, had hinted at potentially making a 3D *Mario* game on the SNES, utilising the Super FX chip. This idea was dismissed, as his vision would have been impossible on the 16-bit machine.

The Ultra 64 – or Nintendo 64, as it eventually became – would be a different kettle of pixels, with its much more powerful specs suited to the free-roaming 3D game that was envisaged. Being a launch title, a lot was depending on it being something special…

PC-owning *Star Wars* fans with a penchant for *Doom*-style first-person action were set for a treat with the release of *Star Wars: Dark Forces* from LucasArts. The plot would see you play the mercenary and Rebel Alliance sympathiser Kyle Katarn during his escapades in destroying the Empire's Dark Trooper project.

Although similar to *Doom*, *Dark Forces* would enhance the FPS experience with multi-floored levels and the ability to look up and down, with LucasArts having written the Jedi Engine specifically for *Dark Forces* and future FPS titles.

It was a tale of two newly released racing games on the two newest consoles. Sony's PlayStation had Namco's *Ridge Racer*, while the Saturn had *Gale Racer* (*Rad Mobile* in its original coin-op form).


» [N64] If the rumours were true, Shigeru Miyamoto was taking the first steps towards creating a *Mario* masterpiece. Pingu guest starred…

The difference between the two games was distinctly obvious from the outset: *Ridge Racer* had some terrific graphics and, despite having only one track to race around, the feel of the game and the atmosphere created made it more of a car simulation than an out-and-out arcade racer.

Meanwhile, *Gale Racer* was hoping to set the Saturn world alight with its fast-moving graphics (which weren't), wonderful collision detection (which wasn't) and outstanding track design (which stunk). Sega wanted a top-notch racing game, but in a head-to-head with *Ridge Racer*, there was no comparison. While *Ridge Racer* was an Aston Martin DB9, *Gale Racer* was a Thundersley Invacar.

Gaming Factoid #731: *Sonic The Hedgehog* made his first videogaming appearance in the *Rad Mobile* coin-op, where he was an ornament hanging in the rear-view mirror.

Coming to a PlayStation near you soon, with Atari Jaguar and Sega Saturn versions not far behind, was *Rayman*. The limbless character soon became a fan favourite, with his game boasting slick graphics, beautifully designed backgrounds and great gameplay. Yes, it was another scrolling platform game, but *Rayman* was infinitely more playable than most of the tosh being churned out,

FEBRUARY 1995 NEWS

On 9 February, the first British-born male astronaut, Michael Foale, walked in space. On going out into the open cargo bay of the Space Shuttle Discovery to test modified space suits. Mr Foale's first words were typically English: "Gosh, it's high, isn't it?"

26 February saw the collapse of the oldest merchant banking company in England, the 233-year-old Barings Bank. It was brought to its knees by one trader, Nick Leeson, who lost $1.4 billion trading on the Singapore Monetary Exchange. Leeson later wrote his autobiography about the collapse and his part in it, which was subsequently made into the movie *Rogue Trader*, starring Ewan McGregor as Leeson.

A British acting great, Donald Pleasence, died at the age of 75 on 2 February after suffering complications from heart failure following surgery. Pleasence is often remembered for his appearances in the *Halloween* movies as Dr Loomis, but other memorable performances include the Bond villain Ernst Stavro Blofeld in *You Only Live Twice* and the American president in *Escape From New York*.

» It's Donald Pleasence as Doctor Evil playing Blofeld as Donald Pleasence… or something…

2 February also saw an English sporting hero die: the tennis player Fred Perry. He famously won a trio of Wimbledon titles between 1934 and 1936, the last time a British male tennis player won a Wimbledon singles title. He died at 85 after breaking his ribs in a fall.

going on to reportedly become the biggest-selling PlayStation game in the UK, with 5 million units sold.

So what's better than *Skidmarks*? *Super Skidmarks*, that's what. Having had a big hit with the original, Acid Software released a sequel chock full of enhancements. *Super Skidmarks* was similar in style to *Micro Machines* and had a host of new features, with several new vehicles to drive, including caravans and a cow on wheels.

We're not sure how cows handle around a tight hairpin bend or whether udder drag is a consideration when entering a corner, but it certainly added to the fun. Throw in 12 new tracks on top of the original dozen and an eight-player mode, and you have yourself one splendid night of racing.

There was more sequel loveliness with the long-awaited return of *Dungeon Master*. In production for the best part of eight years, hopes were high that *Dungeon Master II: The Legend Of Skullkeep* would be everything we were hoping for…

Developed once again by FTL and produced by Interplay, there was something exceedingly disappointing about the game. Released first on the PC, with Amiga and Mega Drive versions arriving early in 1996, the dungeon-exploring RPG had addressed criticisms of the excellent first game.



» [Amiga] After *Skidmarks* came *Super Skidmarks*, complete with novel cow-racing option. Milky milky!



» It's a Sega Saturn but built by Victor/JVC – the memorably named V-Saturn RG-JX1!

You could now escape the dungeon and venture out into the great outdoors, visiting temples, foraging through forests and going to the shops in the surrounding villages. Weather effects also come into play now that you're outside. With the familiar puzzle elements and enhanced real-time battles, *Dungeon Master II* really should have been something quite excellent.

Instead, it seemed to miss the mark, leaving many fans of the first game cold; the atmosphere just wasn't there. Unfortunately, *Dungeon Master II* was merely adequate, and for any fan of the original that was not good enough.

There were new games aplenty being announced for the Saturn, the pick of which looked to be *Shinobi Legions* (*Shinobi X* in Europe), the one and only outing of the classic side-scroller on the console. With nine levels of sword-slashing mayhem, some nicely produced live-action cutaways and, for the first time in any *Shinobi* game, blood splatters, *Legions* would be a superb addition to the Saturn's growing library.

The Saturn may have been a new console, but it hadn't taken long for Sega to license its hardware partners to create their own. First was Victor/JVC with the V-Saturn RG-JX1. Functionally, it was the same as Sega's, although the casing was arguably more attractive. Hitachi and Samsung also went on to produce their own variants.

THIS MONTH IN…

SUPER PLAY

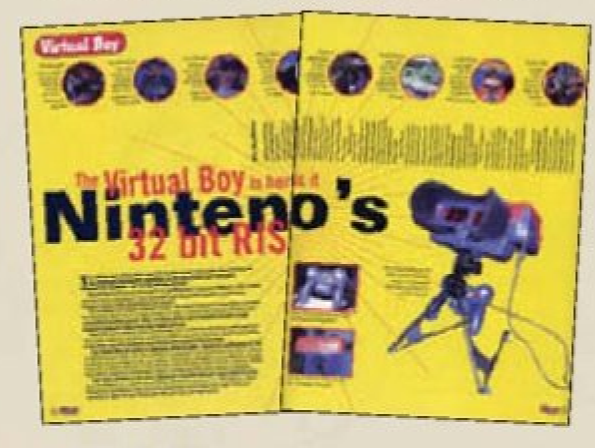


Nintendo's Virtual Boy was previewed from the Shoshinkai convention. The atmosphere at the show, such was the reception of the Virtual Boy, was of disbelief. Nintendo wanted to sell 3 million in the first year. It was discontinued after six months with 750,000 sold.



ULTIMATE FUTURE GAMES

Commenting on the Virtual Boy's 3D effect, *UFG* said that they began suffering headaches after playing. All sounds a bit familiar… Other comments Nintendo hoped not to hear included "many were disturbed by the Virtual Boy" and "jaws dropped for all the wrong reasons".



MEAN MACHINES SEGA



There was undiluted excitement over the import review of *Virtua Fighter* on the Saturn, scoring 96%. "Yes! That's a playability orgasm if you didn't know. This stains the lily white sheets of combat gameplay forever." Tissue?



CHARTS

FEB 1995

AMIGA

1. Sensible World Of Soccer (Renegade)
2. Theme Park (Bullfrog)
3. Cannon Fodder 2 (Virgin Games)
4. Mortal Kombat II (Acclaim)
5. Premier Manager 2 (Gremlin Interactive)

SNES

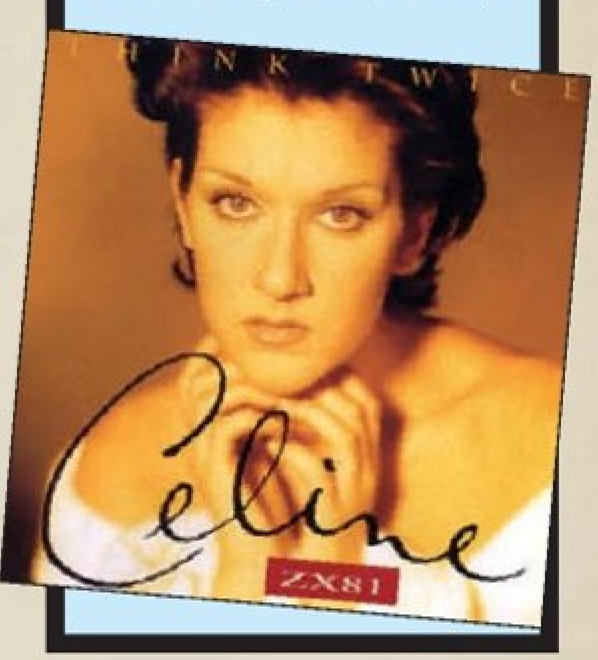
1. Donkey Kong Country (Nintendo)
2. Street Racer (Ubisoft)
3. Starwing (Nintendo)
4. FIFA International Soccer (Electronic Arts)
5. The Lion King (Virgin Games)

PC

1. Doom II (Virgin Games)
2. Dawn Patrol (Empire)
3. Rise Of The Robots (Mirage/Time Warner)
4. Transport Tycoon (MicroProse)
5. Colonization (MicroProse)

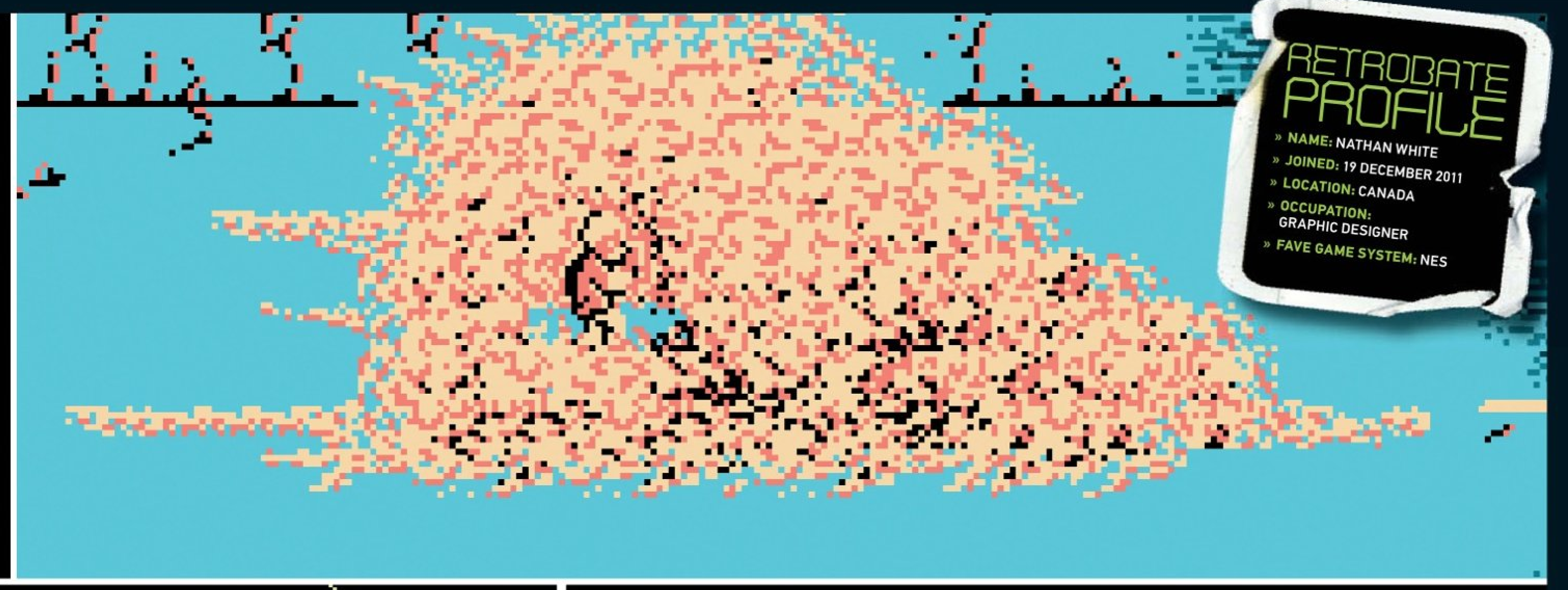
MUSIC

1. Think Twice (Celine Dion)
2. Set Your Free (N-Trance)
3. I've Got A Little Something For You (MN8)
4. No More I Love You's (Annie Lennox)
5. Cotton Eye Joe (Rednex)



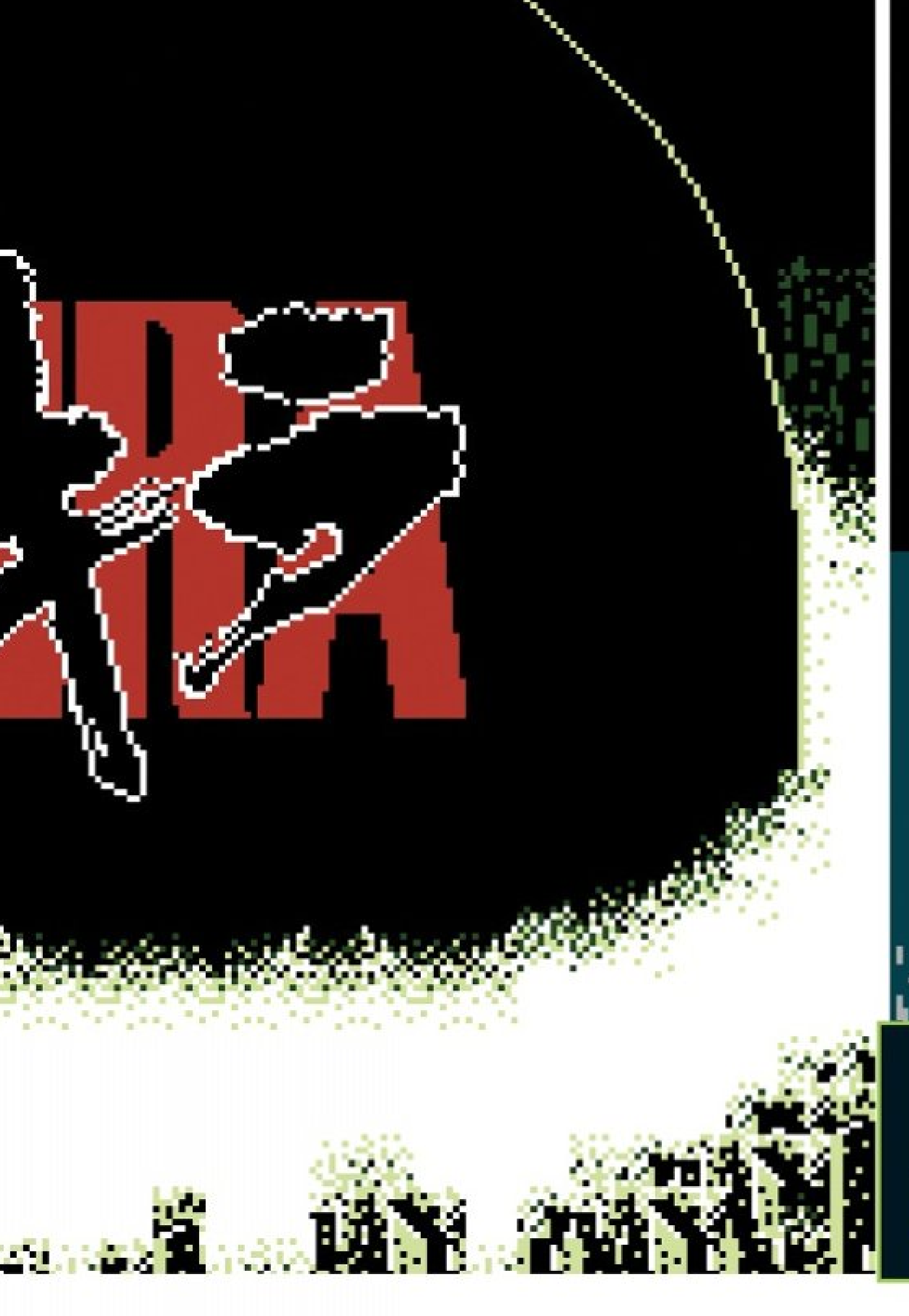



retro GAMER.net
READER'S REVIVAL
CITIZEN
Canon
SHOEI



RETROBATE PROFILE

» **NAME:** NATHAN WHITE
» **JOINED:** 19 DECEMBER 2011
» **LOCATION:** CANADA
» **OCCUPATION:** GRAPHIC DESIGNER
» **FAVE GAME SYSTEM:** NES

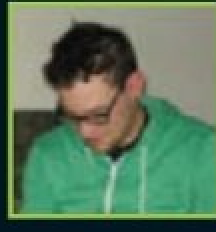




Akira

AMOEBAS DON'T MAKE MOTORCYCLES AND VIDEOGAMES!

#50



» NES
» TAITO
» 1988

Released for the Famicom on Christmas Eve 1988, five months after the Japanese release of the groundbreaking movie on which it's based, *Akira* has garnered a distinct reputation in the West in the ensuing years. That reputation, which suits no other game quite as well, is that it's a really awesome game that you can't play.

I suppose you could play it if you knew Japanese, but I, like so many Famicom fanatics, cannot read a word. Thus *Akira*, which is advertised as a 'psychic adventure game' on the cover, remains a total mystery… a tease, really.

There is a translation patch of the game available, but don't get your hopes up. The patch only translates the intro of the game and nothing else. Every couple of months I get my hopes up and do a Google search, only to find out that no patch has been released, or is even in the works.

Akira was developed and published by Taito, and aside from having a really cool game intro, it also has really cool packaging. *Akira* was released in a plastic clamshell case. Namco(t) also released many of its Famicom titles in plastic clamshell cases – notably *Star Wars* and *Splatterhouse: Wanpaku Graffiti* – but Taito's case is of a different design, and was a pretty novel idea all the same.

The game follows the story of the film rather than the manga, and begins just after the street fight with the Clown gang when Tetsuo sees the Esper and crashes. From there I am pretty lost, because you're confronted with a text-driven point-and-click interface that is completely in Japanese.

I am a huge fan of the movie and manga, and an even bigger fan of point-and-click adventure games, so the fact that I can't play this is an extreme bummer. But hey, at least the intro movie is pretty awesome, right?



INSIDE THE ATARI 2600

THE ATARI 2600 IS PERHAPS THE MOST ICONIC CONSOLE IN EARLY VIDEOGAME HISTORY, AND SO SYNONYMOUS WITH THE ATARI BRAND THAT IT'S OFTEN SIMPLY REFERRED TO AS 'THE ATARI'. MARTY GOLDBERG TAKES YOU BEHIND THE SCENES OF THE DEVELOPMENT OF THIS INDUSTRY-DEFINING CONSOLE

For something that reached such lofty heights as the 2600 did, it should be understood that there were no great aspirations in mind when the synapses fired that led to it flickering into consciousness. It began as a humble idea; a simple, and inevitable next step – though one that would still take doing something never done before. "The architecture was pretty obvious to everybody," said project leader Al Alcorn, then head of consumer engineering. "The business was dedicated game chips, and obviously if you could get a microprocessor and a game in ROM, that was an idea that had legs to it."

What became the Atari 2600 began when Steve Mayer and Ron Milner were coming back from one of the many trips back and forth between their Cyan Engineering headquarters in Grass Valley and Atari Inc's base of operations in Los Gatos. Grass Valley was serving as Atari's R&D group for all its new coin-ops and related projects, a relationship that started in 1973.

Cyan had been founded by Mayer and Larry Emmons – two engineers formerly of Ampex's Videofile division, the same stomping grounds as Atari co-founders Nolan Bushnell and Ted Dabney. As the coin-op videogame field began to quickly grow with competitors, Bushnell knew he needed to stay ahead of the competition by continually releasing new games. He soon struck up a working relationship with his former Ampex colleagues, and Cyan became an important part of his strategy. Enough so that he soon bought it outright.

Cyan would build the wire-wrap prototypes for Atari's early Seventies arcade games, which were then sent down to Atari to be turned into the fully laid out production versions of the games. Quite often they were breaking new ground in their designs. As Nolan put it, "Cyan was building the technical stuff that people said couldn't be built."

It was during the summer of 1975 that Cyan would hit on its most important contribution, thanks to Mayer and Milner. The question they had been asking themselves on the trip back was whether or not they could leverage microprocessors to create a game console that could support multiple interchangeable games. The reason it was on their minds was because in several months Atari was poised to enter the consumer electronics market for the first time. *Pong* was set to invade the home via a relationship with retailer Sears.

The move was made possible due to Atari engineer Harold Lee, who managed to cram Al Alcorn's entire original *Pong* arcade design into a single dedicated chip. Now, together with Sears' consumer electronics industry guidance and a new manufacturing plant paid for by investor Don Valentine, the Sears Tele-Games-branded home *Pong* would begin a new chapter in Atari's history. The company was already planning follow-up consoles based on the same innovative technology, looking to expand with home releases of the many *Pong* 'sequels' that it had put out in the arcade.

This is precisely what led to Milner and Mayer pondering the use of microprocessors for a future console. There was an obvious ceiling on the use of the '*Pong*-on-a-chip' technology: you needed an entirely new custom chip each time you wanted a new set of games. Using a microprocessor meant you could simply use the same main chip and load new game software any time you wanted to play a different game.

As it turns out, management had also been pondering the idea but wanted to take it a step further. "Nolan, Joe [Keenan, Atari president] and I sat around as a team and decided we needed a cartridge-based game system," said Al. With Alcorn giving the go-ahead to Milner and Mayer to being the research, upon returning to the Cyan facilities the duo began investigating what microprocessors were available on the fledgling market to start basing their proof of concept around.

CHOOSING A MICROPROCESSOR AND A REBEL NAMED PEDDLE

Motorola and Intel were the two leaders in the nascent microprocessor industry, which began four years earlier with the introduction of Intel's 4004 chip and was now maturing through Intel's 8080



Knowledge Bank

LAUNCH DATE: 14 October 1977
LAUNCH PRICE: $199
DIMENSIONS: 358.78 x 234.95 x 65.25cm
WEIGHT: 552g
PROCESSOR: MOS/Signetics 6507 (running at 1.19MHz)
RAM: 128 bytes
DISPLAY: Between 256 and 320 pixels per line, and 192 to 240 lines per screen
COLOURS: 128 NTSC, 104 PAL
ASSOCIATED MAGAZINES: *Atari Age, Atari Club, Atari Owner's Club, Atarian*



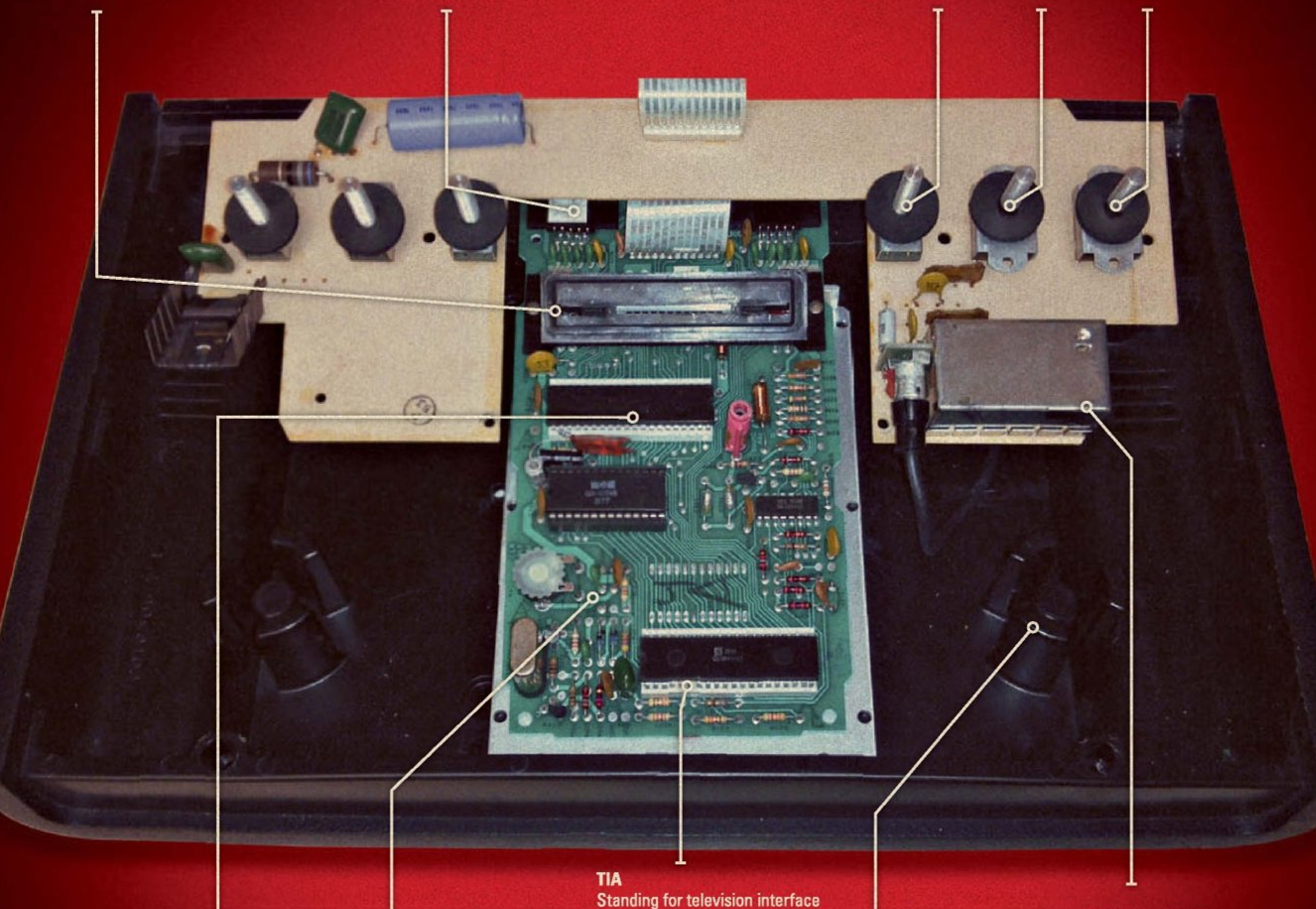
HOW IT WORKS

A GUIDE TO THE KEY INTERNAL COMPONENTS THAT MAKE UP THE LAUNCH ATARI 2600

CARTRIDGE PORT
Besides being the location where game cartridges are plugged in, it also functions as an expansion port of sorts. Later items like keyboards and extra RAM used the cartridge port to interface with the 2600's internals.

CONTROLLER PORT
Two DB-9 ports used for plugging in a variety of controllers and peripherals. Their innovative use allowed the 2600 to have a multitude of potential controllers at a time when controls were normally hardwired to the console.

CONTROL SWITCHES
Housed on a separate PCB that's joined by a ribbon cable to the main board, these are the iconic control switches used in the early models of the 2600. These are (left to right) the power switch, TV type (colour or black and white), left difficulty, right difficulty, game select (for cycling through the many game variations provided in a cartridge) and reset. In 1980 the difficulty switches were dropped from the front and moved to the back near the joystick ports. By the later launch of the 2600 Jr, all the switches were replaced by plastic sliders.



TIA
Standing for television interface adaptor and originally known as Stella, this is the guts of the 2600's graphics and sound.

CPU
The 2600's microprocessor is the 6507, an altered version of the venerable 6502. Missing some of the signal and interrupt lines from the 6502, it can address up to 8K memory natively – though later developers got around this with a technique called bank-switching. This microprocessor was also used as a floppy disk controller in Atari's later 8-bit computer line.

RIOT
An acronym for RAM-I/O-timer, it was more formally called the MOS Tech 6532. It includes the sole RAM on the 2600 – 128 bytes worth. The chip also reads the ports and the six control switches for the console.

SPEAKER RISER
Late in the design of the 2600, it was decided to switch from internally mounted speakers as in other mid-Seventies consoles to sending the audio out directly to the television set. The speaker risers present in the launch model show the decision came too late to change the moulding of the case.

R/F MODULATOR
The picture generated by the TIA is passed to the modulator for display on VHF channel 3. Though to make it more complicated for collectors, some versions of the launch model also have a channel selector switch for channels 3 and 4, or just the hole for one in the case with no actual switch.

and Motorola's 6800. With industry stalwarts Fairchild Semiconductor and Texas Instruments not far behind, sources for the technology seemed to be abundant.

Ron and Steve proceeded to put together several different wish lists for various experimental microprocessor-based game consoles, even going so far as to contact Motorola on pricing. The concept of the console itself went through a series of revisions at this time, including the possibility of producing several 'dedicated' versions, with a group of games built in to each through ROMs.

The problem for an engineer designing a new games console, though, was that the microprocessors currently on the market were still too expensive: around $100 to $300 each. A trip to the 1975 electronics industry convention, Wescon, that September would soon change that.

The Western Electronics Show and Convention (Wescon), at this time, was the premier electronics industry trade show in the US. If you were an engineer in the electronics field, it was your E3. Milner and Mayer just so happened to be doing their research shortly before the 24th annual Wescon, which was taking place in San Francisco that year. They decided to make the trip after receiving a letter from a new, unheard of company, inviting them to come take a look at its new microprocessor. They were soon to discover that the company was a young upstart in microprocessors, in an industry that was itself very young, and was poised to rock the foundation. That upstart? MOS Technology, which was led by Chuck Peddle.

Peddle was a former Motorola employee, joining the company in 1973 to finish its fledgling microprocessor project, based in Mesa, Arizona. After fixing flaws in Motorola's initial design for its first chip, the 6800, and designing the crucial support chip needed for its connection to peripheral devices, Peddle wanted to move on to do a second-generation, cost-reduced version. Unfortunately, Motorola wasn't interested in developing any more microprocessors at the time, so, undaunted, Peddle decided to pursue the development on his own. Eventually partnering with an old business acquaintance, John Pavinen, Peddle brought his project to John's company, MOS Technology. MOS had been dying in the crowded calculator market, and the lure of a low-cost microprocessor proved too great to pass up. So, as Motorola was debuting its 6800 for $300 in August 1974, Peddle and seven co-workers were leaving to begin designs on its low-cost competitor.

Their goal was to sell the new chip in the $20 to $25 range, and offer a series of microprocessors and support chips. They decided to name the series '6500', to directly associate it with Motorola's 6800. The 6502 would be the main microprocessor in the series, which also included a series of support chips to allow connection to various peripherals, just as Peddle had pioneered at Motorola.

The upcoming Wescon was their target for the introduction and initial sales, and that August MOS Technology began placing ads in industry magazines, offering to sell a full microprocessor for $25 right there on the Wescon show floor. While the first half of the offer caught the public's eye, it was the latter that infuriated the Wescon organisers when they heard about it. Wescon was an industry trade show, not a flea market. Upon arriving to set up in their stand at the expo, Peddle and the MOS Technology people were promptly told that under no circumstances would they be selling their chips at the show where everyone in Silicon Valley would be coming to see it – including the guys from Cyan.

> **"Microprocessors meant you could load new software to play a different game"**

Being quick-thinking, Peddle came up with another solution. There was nothing prohibiting them from selling away from the show floor, nor mentioning where to go to buy the chips, so they used their booth for the standard presentation but directed people to their hotel suite to actually purchase the hardware. Peddle stationed his wife just outside the suite with a barrel of microprocessors and a stack of manuals. People would buy the chip and accompanying documentation from her, and then enter the suite to see the full series and support chips demonstrated by Peddle and company on fully functioning trainers (TIM and KIM-1), which they had also designed.

It wasn't long before a large line of hopeful engineers started developing, including a young man looking to build a personal computer, Steve Wozniak. Also among the throngs of engineers were Milner and Mayer, who were both just as impressed with the barrel of microprocessors as the others in line were. Little did they know, though, that only the top half of the barrel contained working chips.

After getting their 6502 with documentation, the two headed in to see Peddle and his people demonstrating the trainers. They met and talked for about an hour and a half, finally negotiating with Peddle to come over to Cyan the next day to discuss plans for using MOS's 6502 and support chip in their proposed game system.

Peddle and his team headed over to Cyan, where they met and negotiated over the next two days.



The joy of becoming a proud owner of this state-of-the-art gaming system during the holiday season of 1977. One of Joe Decuir's favourite moments was watching kids like this play his creation at a store display during the launch.

THE CHANGING OF THE 2600





The launch version of the 2600 features a heavy duty thick plastic casing with characteristic curved edges, only seen on this model. In 1978 the look was changed to a much thinner and boxier style. Likewise the launch version includes six switches to control the power, colour/black and white, left difficulty, right difficulty, game select and game reset settings. Also present in the 1978 model, in later versions of the 2600 the difficulty switches were moved to the back.

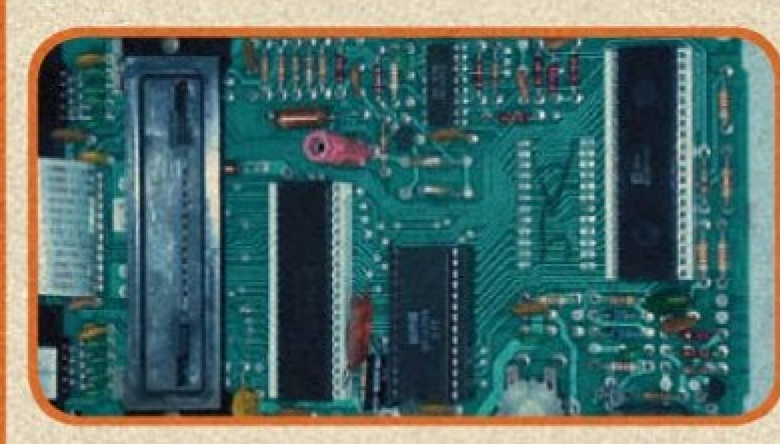




Initially the 2600 was to have all sound through internal speakers, but this was changed to go through the TV speakers after the case moulds had been done. As such, the speaker holes in the 2600's top half and the speaker risers in the bottom half are still present. Some early revisions of the light 1978 model also have these present to various degrees.



The launch version of the 2600 is called the 'Heavy Sixer' by collectors. As seen here, it gets its name from the heavy metal shielding meant to block the electronic interference generated by the 2600. The FCC (Federal Communications Commission, the governing body in the US for regulating broadcasting) had not created its special class for devices like this yet, so the shielding was added to meet the current standards. The 1978 model left out the heavy shielding, and together with its cosmetic changes is sometimes referred to as the 'Light Sixer'. It's a common myth that only Heavy Sixers were made in Sunnyvale, but the early runs of the Light Sixers were made there as well.



The motherboard of the 2600 is actually quite small, and besides the ribbon cable to the switch board and the cartridge port, it contains three main chips. (Left to right) The 6507 CPU, the MOS RIOT chip and the TIA graphics chip.

10 GAMES THAT DEFINED THE ATARI 2600



ADVENTURE
YEAR RELEASED: 1979

Warren Robnett's *Adventure* was a massively defining game and not just for the Atari 2600. In addition to being one of the earliest examples of a developer sneaking his name into a game, it also allowed players to stash items and went on to popularise the adventure genre, which has since been championed by everything from *Haunted House* to *The Legend Of Zelda*. It went on to sell 1 million units, which isn't bad for a game inspired by a text adventure.



E.T.
YEAR RELEASED: 1982

Howard Scott Warshaw's *E.T.* helped define the 2600 as well, but for all the wrong reasons. Originally envisioned by Warshaw as an innovative companion piece to the film, late negotiations for the rights meant that he had just five weeks to get the game ready for Christmas. Although it sold over 1.5 million units, Atari Inc actually ordered 4 million, and as a result had to send surplus copies back, with rumours suggesting that the cartridges were used as landfill.



YARS' REVENGE
YEAR RELEASED: 1982

In the same year that he created his most notorious game, Warshaw also shipped his best. Starting off as a port of Cinematronics' *Star Castle*, Warshaw remoulded the game into something completely original. The end result was an amazingly innovative shooter that became so popular it even spawned its own theme song and a radio drama based around the comic book that featured the original story. It went on to become the bestselling original title for Atari's console.



SPACE INVADERS
YEAR RELEASED: 1980

There are few games as defining at Atari's port of *Space Invaders*. It was the first licensed arcade game, became the first console videogame to sell over a million units – it eventually sold over 2 million in its first year – and defined the term 'killer app' when its sheer popularity saw the 2600's sales quadruple after the game was released. Not bad for a machine that was already three years old at the time. Although not very arcade accurate, it sported 112 different gameplay variations.



COMBAT
YEAR RELEASED: 1977

Combat was inspired by *Tank*, but improved on the original arcade game by offering 27 different gameplay modes that were also inspired by other arcade games. Available as one of the Atari 2600's nine launch titles, it's remembered by virtually every 2600 owner, due to being the game that was actually packaged with the console. Steve Mayer, Joe Decuir, Larry Wagner and Larry Kaplan created one of the earliest examples of a two-player game on the machine.

"Motorola sued Peddle and MOS Technology for theft of engineering drawings and trade secrets"

Steve and Ron's previous dream specs were discussed, as well as needs, possible board designs, and financial targets. In the end, Cyan decided to sign on with MOS Technology's chip, but not the 6502. Because it was targeted for a mass-produced game system, cost was an issue and the proposed 6507 was more in line to meet that goal. With the 6507 and the support chip, they'd just need to design a processor for graphics and sound support.

MOS had a relationship with another engineering firm by the name of Microcomputer Associates, which had developed the debugging software for MOS's training systems and had its own development system that was being publicly sold the following month, complete with a terminal interface and built-in debugging software. Called the Jolt, it was decided to use this as the main board of the console during development of the custom chip.

One last hurdle remained. Both MOS and Atari/Cyan wanted to set up a second manufacturing source for the chips. MOS wanted it because setting up a second source would give it more credibility in the microprocessor market; Atari wanted it as a backup in case MOS went out of business, which would not be that uncommon. Atari also wanted to deal with someone on the West Coast, instead of out east where MOS was located. It turned out both companies had someone in mind, and both were thinking of the same company: Synertek.

Peddle had worked with the Synertek president and co-founder, Bob Schreiner, during their tenure at GE. He also knew Schreiner wanted to get into microprocessors and was more than happy to help his old friend out. Atari wanted to work with Synertek because they already had a working relationship – Synertek was the company doing the '*Pong*-on-a-chip' IC layout and manufacturing.

With everything settled by the next month, Milner and Mayer notified the other microprocessor manufacturers that they were no longer interested in their products and were going with MOS instead. That was fine for most of the manufacturers, since the Cyan contract was not considered the 'big money' deal they were looking for. Fine, that is, for all except one.

Motorola, which had kept an eye on Peddle, sued him and MOS Technology for theft of engineering drawings and trade secrets exactly one week after the announcement. Using the short turnaround time between Peddle's departure and the production run as evidence, and the fact that the 6501 model was pin-compatible with Motorola's 6800, it filed suit on 3 November 1975. Here was the exact reason why Atari wanted a second source, with the possibility of an injunction preventing MOS from doing any manufacturing. Motorola eventually won the suit, though not against the 6502. The terms called for the destruction of all 6501s and a payment of $300,000 for the legal fees. Though it would end up making the 6501 a very collectable chip for computer enthusiasts today, it was of little concern to Atari and Cyan at the time. They had their second source, an extremely cost-effective base design, and the talent to begin their next-generation gaming console.

PROOFING STELLA

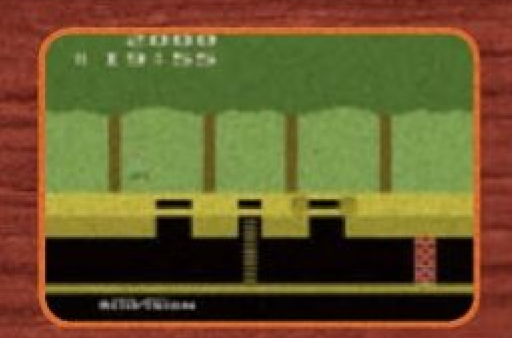
By December 1975, Milner and Mayer were able to get a working, although buggy, prototype to play a home version of Atari/Kee's hit arcade game, *Tank*. Using the 6502/Jolt setup along with the beginnings of a custom graphics chip, the two had even appropriated the actual joysticks from a *Tank* coin-op for the primordial system's controls.

At that point, a young engineer was hired by Alcorn to help debug the project and bring it back from Cyan to Atari for its next stage, working as a bridge of sorts. Joe Decuir was a graduate of the local UC Berkeley and working in medical instrumentation design, and looking for a way out. "We were using expensive new equipment to try heroically to save people in really bad shape," he revealed. "Most of them – 91 per cent – died either way. It was kind of demoralising."

A friend of Decuir's, Ed DeWath, had known Milner and recommended Decuir for Cyan. Decuir actually wasn't sure about going into games, but luckily for all

SOME OF THE MOST IMPORTANT AND INFAMOUS TITLES TO BE RELEASED ON ATARI'S POPULAR HOME CONSOLE





PITFALL!
YEAR RELEASED: 1982

Pitfall! was a massive deal on the 2600. It sold over 4 million units, becoming the second bestselling game on the system after *Pac-Man*. The game had its own cartoon show and helped establish Activision as a publishing force to be reckoned with. It's also one of the earliest examples of a scrolling platformer – games before it were static, single-screen affairs – and while Pitfall Harry wasn't an official Atari mascot, many gamers instantly associated him with the 2600 console.



RIVER RAID
YEAR RELEASED: 1982

Created by ex-Atari coder Carol Shaw, and based on Atari's 1978 coin-op *Sky Raider*, *River Raid* was another hit for the fledgling Activision and became the tenth bestselling game on the system, with sales of over 1 million. Like many Activision games it's an incredibly slick piece of coding that pushed the machine in ways that were rarely seen on the system. *River Raid* was an interesting shooter featuring rolling terrain that was dynamically generated during play.



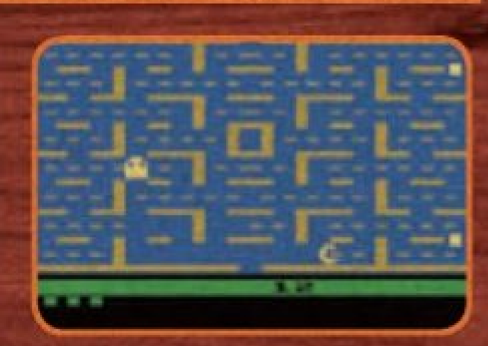
MISSILE COMMAND
YEAR RELEASED: 1980

After the graphically disappointing *Space Invaders*, *Missile Command* proved that it was possible to create an extremely good reproduction of a hit arcade game on Atari's console. There were obviously compromises made to the game – it's missing the planes and UFOs, for example – but it's still an extremely fun game. It proved to be an equally big hit on the Atari 2600, eventually going on to sell over 2.5 million units, making it the system's fourth bestselling game.



THE EMPIRE STRIKES BACK
YEAR RELEASED: 1982

Although *The Empire Strikes Back* wasn't the first videogame to be based on a film or TV licence, it was the first to prove that it was possible to capture the excitement of the original product. The first ever game to be based on the *Star Wars* franchise saw you zooming around in a Snowspeeder while taking down Imperial AT-ATs. Extremely popular at the time and later converted to the Intellivision, it started a rich gaming franchise that continues to this day.



PAC-MAN
YEAR RELEASED: 1982

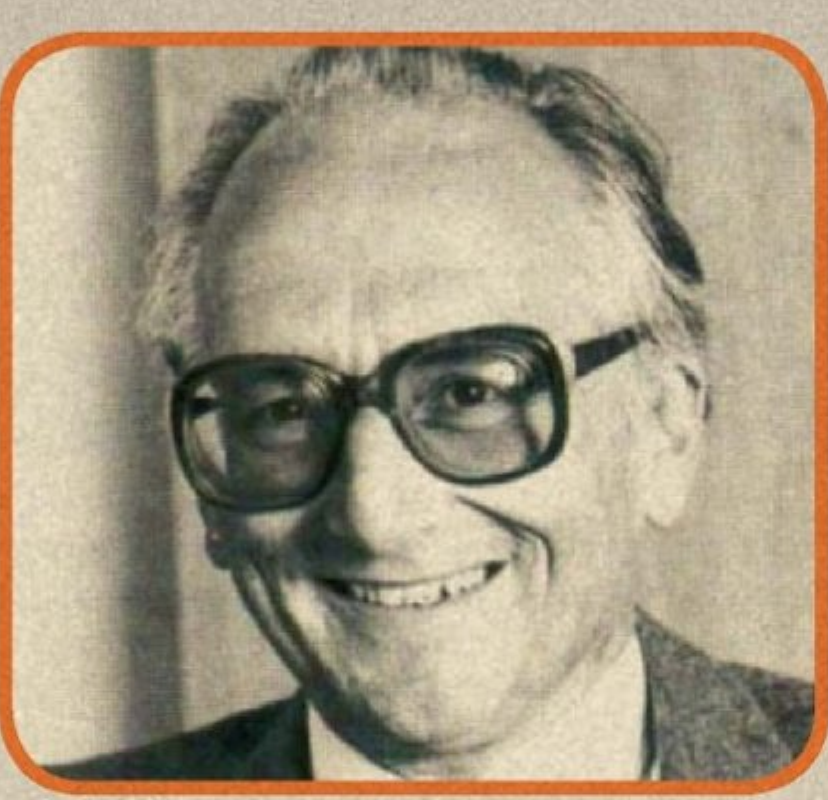
When *Pac-Man* was being created by Tod Frye, Atari was so sure of its success that it simply assumed 10 million 2600 owners would rush out and buy it. Not only that, but it thought more people would buy the machine to play it (it was a pack-in title), leading Atari to order 12 million units on the assumption that predicted sales would reach $500 million. The plan backfired, and while it shifted 7 million units, it created a massive number of unsold carts, which many attribute to Atari Inc's eventual fate.

of us he was convinced by his father and another friend. "My father said, 'Pick the job that teaches you more,' and Cyan/Atari had the potential to teach chip design. My friend Greg said: 'You can do good for the world with games. Most people are sick by their own hand – smoking, bad eating, etc – and are lonesome and bored. Go ahead and entertain them.'"

Decuir immediately set about debugging the demo system, and one of the first things he had to do was have an account created on the DEC PDP-11 timesharing system the group was using for cross-assembling the demo game code. Needing a password, he chose the name of his favourite bike, Stella, which he still owns and rides to this day. The name would stick and eventually become the code name for the 2600's custom graphics chip, but in the meantime Decuir's goal was getting the *Tank* game further along in time for a February 1976 demonstration to Bushnell, Keenan and Alcorn. The prototype's architecture at that time was influenced by the coin-op arcade game design that Cyan had also done for Atari. That would certainly make sense, given that the goal of the 2600 was to play all Atari's early and mid-Seventies coin-op games.

In essence, it was a minimalist version of the features present in Atari's coin-ops. Everything was synced to the scan lines of the television display. What was to be displayed on the screen was then supported by separate hardware registers for the screen elements that were themselves split up. A separately generated background filed with 'stamped' graphic items was termed as the 'playfield' – a term borrowed from pinball. The objects that were player-controlled or interactive were termed player/missile objects and used separate hardware object generation known today as 'sprites'. In this case, each object to be displayed would be generated separately by loading the individual pixel descriptions for each into several hardware registers. Both the playfield and player registers could be reused by the programmer per each scan line, meaning you could have multiple player objects – a concept done to keep costs down but that would ultimately lead to a very flexible system that allowed graphics capabilities far beyond what was originally envisioned.

When February rolled around, also on the agenda for that day was a demonstration of a prototype videophone system that Cyan had designed.



The man behind the 6502, Chuck Peddle also helped spec out the proof of concept for the 2600 and find a second source to manufacture his chips for Atari.

However, only one of the two would make it past approval stage for full product design down at Atari, as Bushnell hilariously dismissed the videophone by mooning the team through it.

Now that the project was approved to move on and come down from Cyan to Atari, Atari knew it was going to have to bring someone on board to design the full custom graphics chip. None of the engineers in the coin division would be up to the task of the advanced custom chip layout design called VLSI (very-large-scale integration). Likewise, Harold Lee, who had designed the custom

REVISIONS, REVISIONS...

THE 2600 WENT THROUGH SEVERAL REVISIONS DURING ITS TIME ON THE MARKET, AS WELL AS HAVING ALTERNATIVE VERSIONS AVAILABLE THROUGH SEARS UNDER ITS TELE-GAMES LABEL

HEAVY SIXER
The original 1977 model with its six console levers, thick moulded plastic, heavy internal shielding, faux woodgrain and deluxe controllers. Notable for being manufactured in Sunnyvale.

LIGHT SIXER
Released between 1978 and 1980. Cost-reduced exterior and joysticks.

2600-A
Four-switch model, difficulty switches moved to the back. Last model with woodgrain effect.

2600
Four-switch all-black model called the 'Darth Vader' by collectors. First actual use of 2600 as the name of the console instead of its model number, mainly because of the simultaneous release of the Atari 5200 in 1982.

ATARI 2800
Released 1983. Rare Japanese version of the 2600. Released in the US as the Sears Video Arcade II.

2600 JR
Released in 1985. The final revision, extremely cost reduced.



Clockwise starting top right: Atari 2800, 2600-A with Spectravideo CompuMate computer expansion, Heavy Sixer, unreleased Kee Games prototype version.

'*Pong*-on-a-chip' that launched Atari's consumer division, didn't feel he was up to the task either. "You could pack a lot more logic in when dynamic logic became available," he explained. "I'd never designed a chip like that before, so I didn't want to do that, and that's when I brought Jay Miner to do it since he'd already had experience in designing those chips."

Alcorn and Lee had known about Miner because of his previous work on helping them with the '*Pong*-on-a-chip' layout at Synertek. Now, after setting up Synertek as a major secondary source for the 6502 chip, which was fast gaining popularity, Alcorn used that as leverage for prying Miner away. Promising large chip orders in the near future, as Atari was beginning to use the 6502 in coin-ops as well, he was able to get Miner under an Atari badge. Decuir had already been notified after the February demonstration that he was moving down to Atari, and with Miner on board, he'd be apprenticing directly under the man Alcorn described as being "the best chip layout guy on the planet". Together they would be leading the transition from the Cyan proof of concept to a fully produced game console, complete with the first-of-its-kind custom graphics chip. Larry Wagner was also added as head of software development, and he would eventually be in charge of hiring the programmers who did the first ten launch games – many of whom would go on to form Activision.

Most of the engineering for the consumer division, since it was still just a small group of people, was taking place among their coin-op division colleagues. After all, Atari had just started its foray into the consumer arena, and its main bread and butter at that time was still arcade games. Alcorn knew that Atari needed to keep the revolutionary console a secret from competitors, but also, more importantly, from a lot of management: "My job was to keep the hounds away from these guys, to keep away the corporate bean counters and just let them do their job, which was about 50 per cent of my time."

He rented a secret location far away on Division Street to let the expanded team do their work. That didn't last long, as without telling him, head of coin-op engineering Steve Bristow rented the building right next door for Atari's new pinball operations.

STELLA TO VIDEO COMPUTER SYSTEM

Under Miner's leadership, the 2600's architecture was formalised, restructuring the internal memory map and planned hardware registers, and making sure the synchronisation between the 6507 and the custom graphics chip was so tight that there was less memory needed. RAM was costly for the time, so the console would have to make do with the 128 bytes on the 2600's third chip, called RIOT (RAM-I/O-Timer).

The custom graphics chip had now been renamed Stella by Miner after seeing Decuir's use of it, and soon Miner's boss, Bob Brown, used it for the name of the entire project. In the meantime, Miner and Decuir took the bare-bones graphics processing done on the original prototype and began producing a gate-level version, which would be the exact one that carried over into chip form. By the time it was finished and moved into its early chip format, where it was renamed TIA (television interface adaptor), several major occurrences happened that would affect it both in the immediate and long term.

First and foremost was the sale of Atari Inc to Warner Communications, completed in October 1976. Atari had been in dire straits financially and had been looking for people to invest and inject much-needed cash to allow the company to continue to grow. When that didn't work, Bushnell and Keenan began looking for someone to sell the company to outright, and Warner came knocking with its deep pockets.

Second to happen was Atari's settlement with Magnavox in the beginning of June 1976 over patent lawsuits. Agreeing to pay a large sum and give free access to any Atari technology already produced or in production until June 1977, hiding the 2600 – now called the Video Computer System – was crucial. As such, it didn't make an appearance at the Consumer Electronics Show until after the deadline.

> "Everything in the VCS pointed to a high-end piece of entertainment equipment"

Last was the release of Fairchild's own microprocessor-based system in August of 1976. With Fairchild in the area and several engineers at Atari being friends with the system's designer, Jerry Lawson, they knew the console was coming. Jerry was even able to solve the issue on his console that had been plaguing Atari's design team, which was guarding against static discharge when removing cartridges – an answer that Atari quickly employed. But now, with Fairchild hitting the market first, it was clear where the future of home consoles lay. And as far as Manny Gerard, the new overseer of Atari for Warner, was concerned, the future of Atari was the 2600. Warner had that much faith in it.

By the time it was finally shown off in June 1977, the 2600 had taken on the characteristics of the flagship product Warner demanded and Atari wanted. A mix of heavy, stylised plastic and faux woodgrain designed by Doug Hardy and Fred Thompson, it was meant to fit visually in anyone's entertainment centre. It also featured a pair of deluxe arcade-style controllers to fulfil the requirements of playing the bulk of Atari's early arcade games – digital joysticks and analogue paddles – designed by Gerald Aamoth and John Hayashi. Also of note to those who saw it at the show was that, unlike Fairchild's console or any of the many *Pong* machines on the market, the 2600's sound was coming directly through the television's speakers instead of an internal speaker. With the much clearer sound output and the overall production value, everything pointed to a high-end piece of entertainment equipment.

Debuting in stores on 14 October 1977 with a set price of $199, Atari had immediately sold out of its entire initial 400,000-unit production run to retailers for that Christmas season. The consumer age at Atari had begun, and for millions of homes it was soon to be the Atari age.

DISSECTING THE ATARI 2600 JOYSTICK

IT'S ONE OF THE MOST ICONIC CONTROLLERS AROUND AND IS ARGUABLY AS ASSOCIATED WITH ATARI AS THE 2600 ITSELF. JOIN US, THEN, AS WE LOOK AT ONE OF THE MOST RECOGNISABLE JOYSTICKS OF ALL TIME



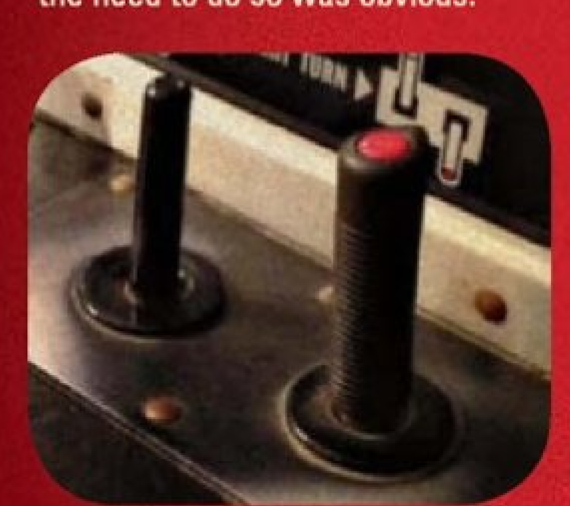
The deluxe nature of the CX-10 is readily apparent with the use of heavy springs for all four directional contacts and the fire button to provide an arcade-like floating feel to the stick.

Most fans are not aware that the launch version of the 2600 included a special joystick only seen with this model. Designated the CX-10, as with the console case, this model is a deluxe version. Seen here on the left compared to the more common CX-40 joystick on the right, the immediate difference is the presence of a heavy-duty rubber grip, complete with inlaid Atari logo. Also note the absence of the 'top' designation added to the CX-40s to help out confused first-time users.



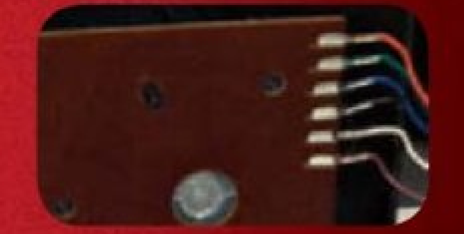


The 2600 joysticks, synonymous with Atari when you think of game controllers, were inspired by Atari/Kee Games' hit 1974 arcade game, *Tank*. With the original proof of concept of the 2600 based around playing a home version of the game, and with *Tank* included with the unit on the pack-in cartridge, *Combat*, the need to do so was obvious.

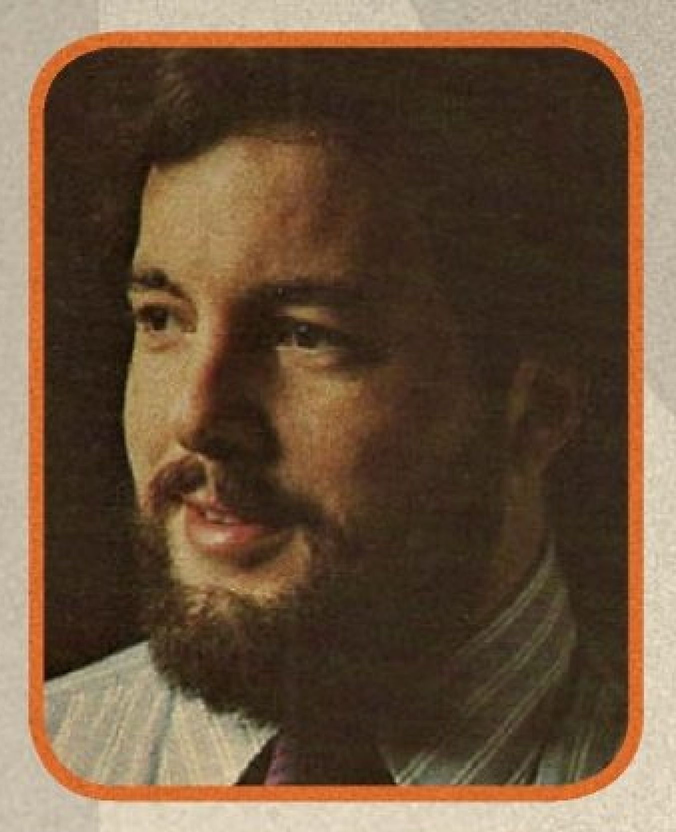


On the inside, the shapes of the controller PCB also differ in looks and layout, with the CX-10's six connectors split three by three.





The CX-40 instead uses a hard plastic disc to make contact with the controller PCB, giving it its more characteristic stiff feeling. The fire button still includes a spring, but it's a much lighter spring, providing less feedback than those on the CX-10.



Al Alcorn in the early Seventies. By the time of the 2600's design, Al was head of consumer engineering and overseeing Atari's expansion into its successful home products.

ATARI AS ITS OWN COMPETITOR



NOT KNOWN BY MANY, ATARI ACTUALLY WORKED ON TWO ALTERNATIVE SYSTEMS TO THE 2600

The first was a system that never saw regular production, called the Atari Game Brain. Meant as an alternative to the 2600's microprocessor-based architecture, each cartridge contains all the circuitry for each game. The console itself is almost empty, containing only wiring for the controls and hookups.

At first glance, the Game Brain looks like an attempt to cram every single control scheme in Atari's arcade games onto the surface of the console, with four direction buttons in lieu of joysticks. In fact, a Rolodex-style stack of cards was provided to show which buttons were used for each of the five initial games: *Video Music*, *Ultra Pong*, *Super Pong*, *Stunt Cycle* and *Video Pinball*.

Although it was cancelled, consoles with the same concept of full dedicated console hardware inside removable cartridges found their way onto the market in the form of the Coleco Telstar Arcade in the US and the SD-050 by Hanimex in Europe.

Atari also hedged its bets on the future of the market with a dedicated home version of its *Tank* coin-op called *Tank II*. The console featured hardwired versions of the same joysticks planned for the 2600 and was actually shown alongside the 2600 at the June 1977 CES. When it was clear that the 2600 was in demand for the upcoming Christmas season, *Tank II* was unceremoniously dumped.

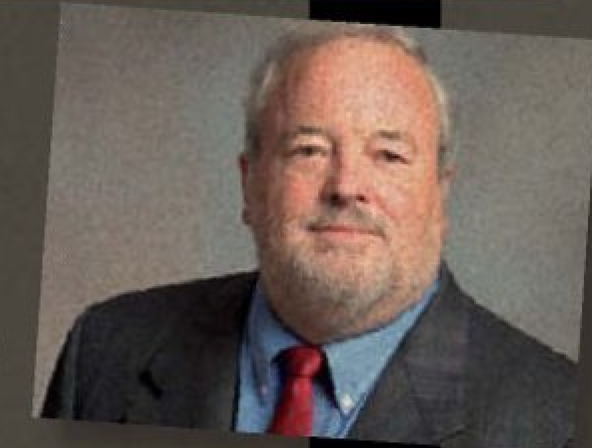
40 REASONS WHY ATARI CHANGED GAMING

It brought cartridge-based gaming to the masses and was instrumental in establishing the videogames industry. With the Atari brand celebrating its 40th anniversary this year, Retro Gamer looks at 40 ways it helped shape and define gaming

ATARI COMMERCIALS

TODAY'S VIDEOGAME ADVERTS are slick productions with big budgets, celebrity appearances, renowned directors and recognisable music tracks, but of course Atari Inc was there first. Some of its first commercials featured celebrity appearances, from well-known sports stars to famous actors and comedians. Atari also wasn't averse to throwing money at the games it saw as having potential to be successful. This is evidenced by its award-winning commercial for *Yars' Revenge*, a two-minute short that brought together computer graphics and live-action film, and played in movie theatres.

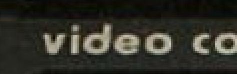
AL ALCORN



ALLAN ALCORN IS an important cog in the Atari Inc wheel, as he was directly involved in many of the company's early successes. He became its first ever design engineer and was directly responsible for the creation of *Pong*, as well as *Space Race* and *Gotcha*. He was also involved in the creation of the Atari 2600 and squeezing *Pong* onto a single chip for its home release.

THE ATARI 2600

ONE OF THE most iconic game systems ever made, the VCS/2600 wasn't the first games console, nor was it the first to take cartridges, but it was instrumental in popularising cartridge-based gaming. With the exception of dedicated *Pong* consoles, it was Atari's first proper stab at bringing the arcade experience into people's homes and also helped divide the industry into two markets: domestic and coin-op. Released in October 1977, and originally retailing for $199, the VCS was packaged with *Combat*, and after a slow start, by 1980 it became the new must-have console, thanks in no small part to its *Space Invaders* port. Before being discontinued in the early Nineties, it received a series of variations. The two most distinctive models are the original six-switch woodgrain model, dubbed the 'Heavy Sixer', and a stylish all-black version nicknamed 'Darth Vader', which Atari Inc rolled out as the 2600.



SCREEN CAMEOS AND PARAPHERNALIA

ATARI INC'S OWNERSHIP BY media giant Warner Communications meant plenty of pioneering cross-marketing. Atari's games and branding were used to sell bed sheets, children's costumes, storybooks, records, party decorations and more. Warner also leveraged another of its subsidiaries, DC Comics, for a number of comic book crossovers, including Atari's own series called *Atari Force*. Likewise, Warner's Hollywood connections were able to get Atari and its products in major movies like *Blade Runner*, *E.T.*, and *Airplane!* (pictured), as well as TV shows such as *ALF* and *The A-Team*.



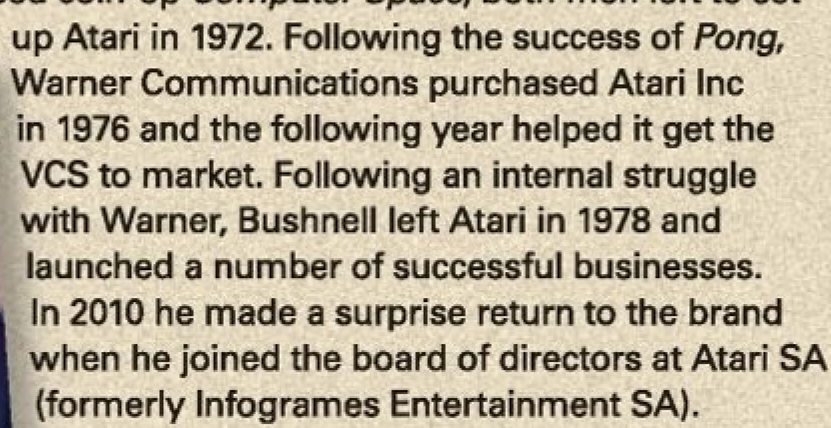


THAT CONTROLLER

AS THE COMPLEXITY of games has increased, so controllers have had to evolve to keep up. Today's pads can almost be described as hand gyms, giving your extremities a complete workout across pressure-sensitive face buttons, analogue nubs, D-pads and touch pads. Back in their infancy, though, games were far simpler and virtual heroes could navigate their worlds with accessible control schemes.

Though simple, the Atari 2600 controller was both functional and clever; that its design was so straightforward meant it was perfect for kids and novice gamers to grasp. Yes, it was far from perfect, and the more common CX-40 models were stiff, but it still got the job done.

NOLAN BUSHNELL

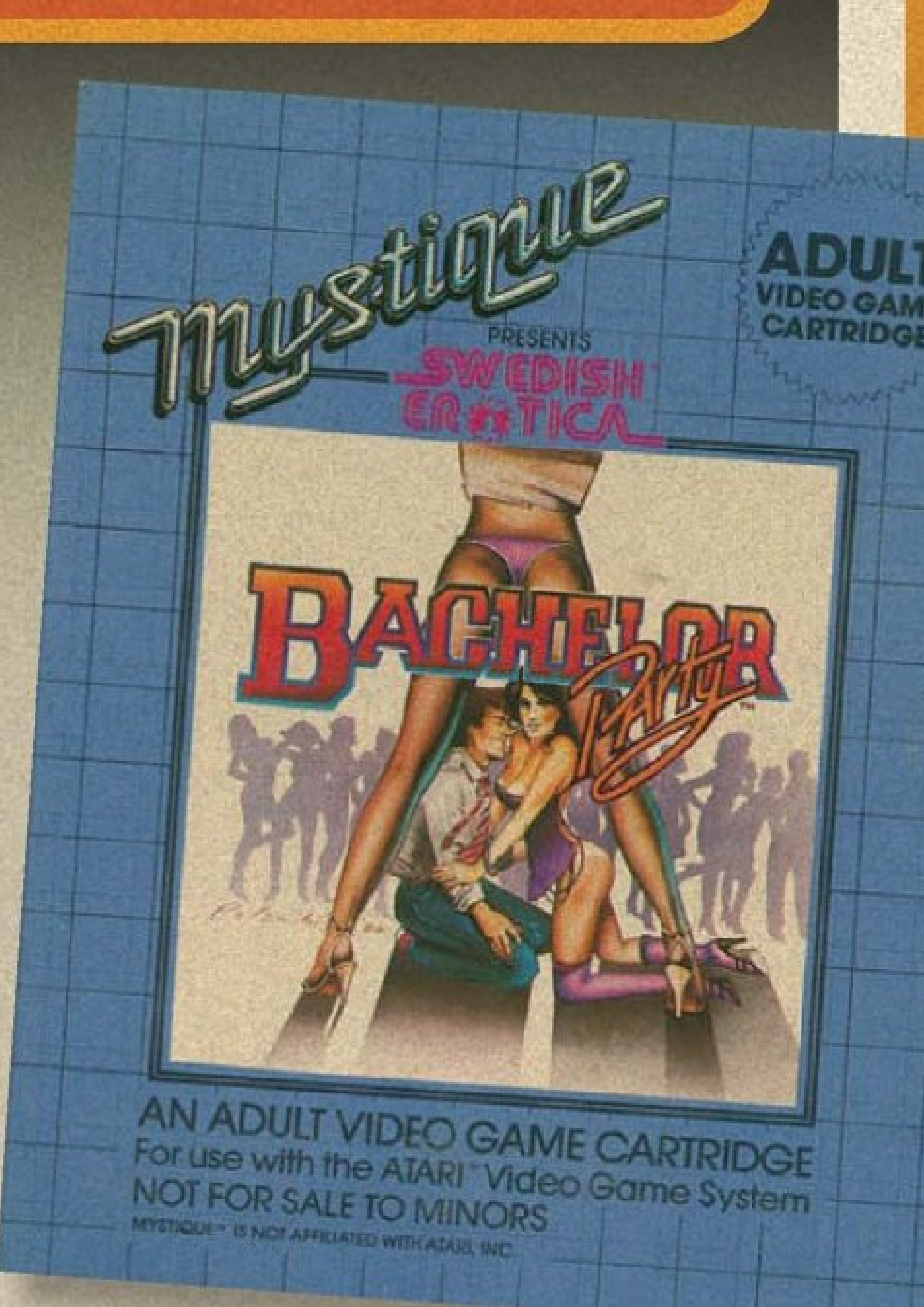


ONE OF VIDEOGAMES' founding fathers, Nolan Bushnell was the engineer and brilliant entrepreneur who co-founded Atari Inc with Ted Dabney. After working with Nutting Associates to release the *Spacewar!*-influenced coin-op *Computer Space*, both men left to set up Atari in 1972. Following the success of *Pong*, Warner Communications purchased Atari Inc in 1976 and the following year helped it get the VCS to market. Following an internal struggle with Warner, Bushnell left Atari in 1978 and launched a number of successful businesses. In 2010 he made a surprise return to the brand when he joined the board of directors at Atari SA (formerly Infogrames Entertainment SA).

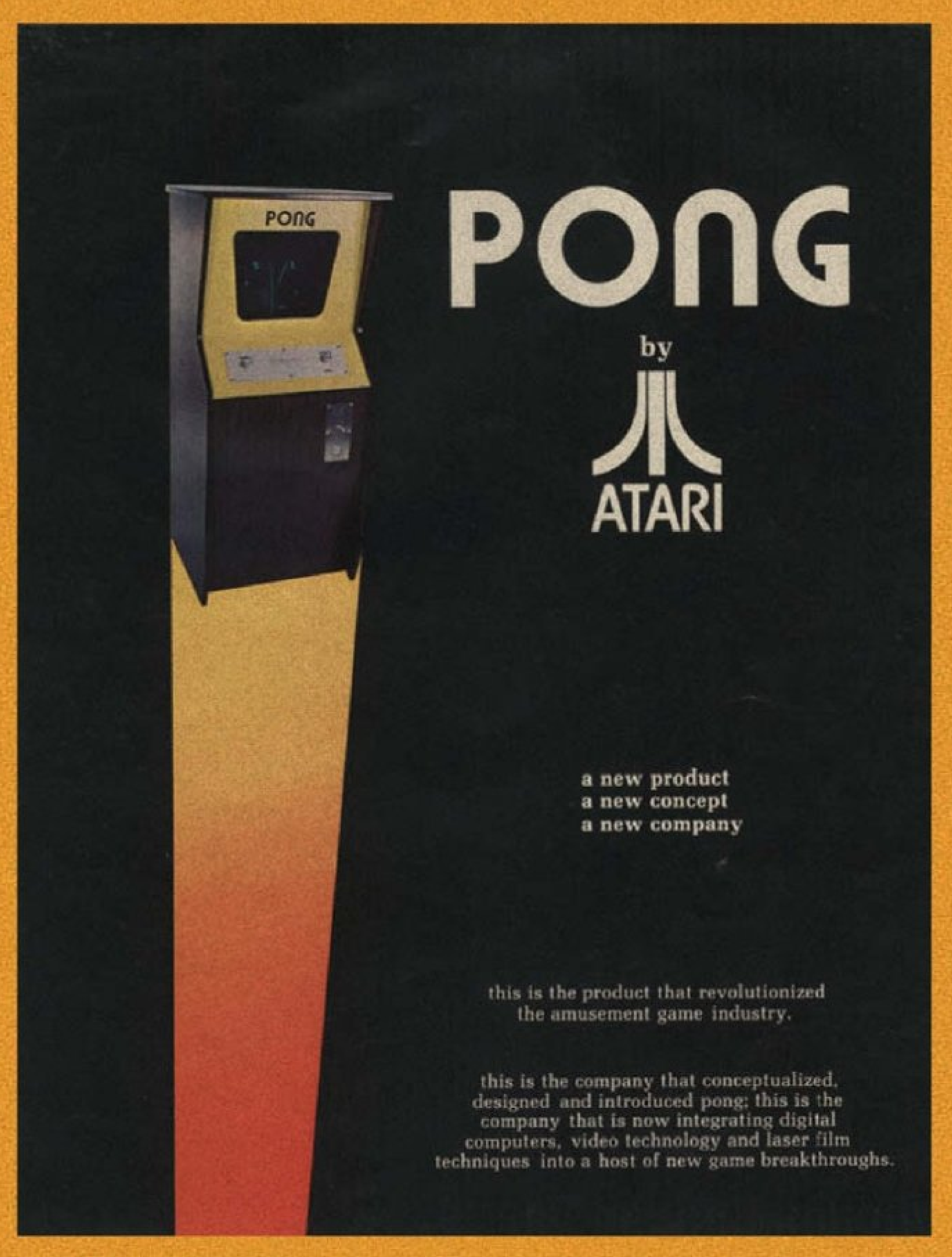


RUDE 2600 GAMES

WITH THE 2600 becoming a staple fixture inside many American homes, companies were keen to try to profit from its large install base. At the height of the machine's popularity, this caused massive game saturation in North America and a torrent of shovelware to find its way to game shelves. It also resulted in a series of terrible pornographic 2600 games by adult movie company Mystique. Clearly thinking that sex sells – even ugly digital sex – it released *Bachelor Party*, a *Breakout* clone where the paddle is a naked man and the blocks naked girls; *Beat 'Em & Eat 'Em*, which isn't a scrambled egg making simulator; and the controversial *Custer's Revenge*.







PONG

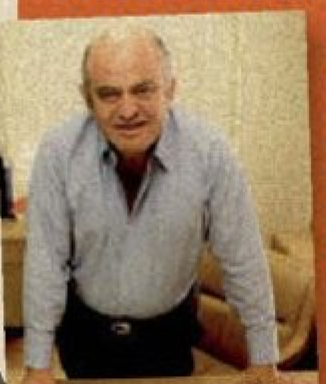
THE FIRST GAME Atari Inc ever released, *Pong* started life as a simple training exercise that Bushnell assigned to the company's first ever design engineer, Allan Alcorn. The brief was to create a game with two paddles, a moving spot and a scoreboard, and, working to this remit, unsurprisingly, Alcorn developed a version of electronic tennis. After a series of tweaks, adding sound effects and realistic return physics, the first prototype of *Pong* was installed in Andy Capp's Tavern in California. Within days of being installed, the prototype began developing technical issues, and closer inspection revealed that the issue stemmed from an overfeeding of quarters. Realising straight away the potential, Atari decided to manufacture and ship the machines itself.

THE ATARI JAGUAR

FOLLOWING ITS ABANDONMENT of the Lynx, Atari Corporation tried once again to regain a foothold in the home videogame console market. It set about achieving this task with a powerful new console to blow the competition out of the water. Designed by the very same minds behind the never-released Konix Multisystem, and released in November 1993, the Atari Jaguar was the first 64-bit games machine. Despite its impressive technical specs and an ambitious virtual reality headset peripheral, though, the Jaguar was a commercial flop, ultimately hurt by a lack of decent exclusive software and the looming threat of upcoming hardware from Sega and Sony. Despite its failings, today the Jaguar enjoys a relatively fruitful homebrew scene and has garnered a loyal fan base.

JACK TRAMIEL

FOLLOWING THE COLLAPSE of Atari Inc, in 1984 the company was divided into two parts. While Warner Communications retained the arcade division, which was renamed Atari Games, what remained of its computer and console division was purchased by business entrepreneur Jack Tramiel, the Commodore International founder who brought the Commodore PET, VIC-20 and Commodore 64 to market. It was folded into his Tramel Technology Ltd, which was renamed Atari Corporation. It marked the second incarnation of Atari, though now the brand was split between two owners.



PACKAGING

HARDWARE AND VIDEOGAME manufacturers spend a lot of money and time to come up with the design of their packaging in a bid to make them stand out on shop shelves, and this practice can be traced back to Atari. It was the first publisher to really use packaging to create a strong brand identity through its bright, colourful VCS boxes. Using clear text, attention-grabbing cover hits and the title of the game printed across the spine, they shared much in common with magazine covers. Atarisoft boxes for other formats were also colour-coded, and this again became a staple – exampled by the orange, red and yellow flashes used to signify CPC, C64 and Spectrum games respectively in the UK, and the graph paper borders used on the box covers of Mega Drive and Master System games.

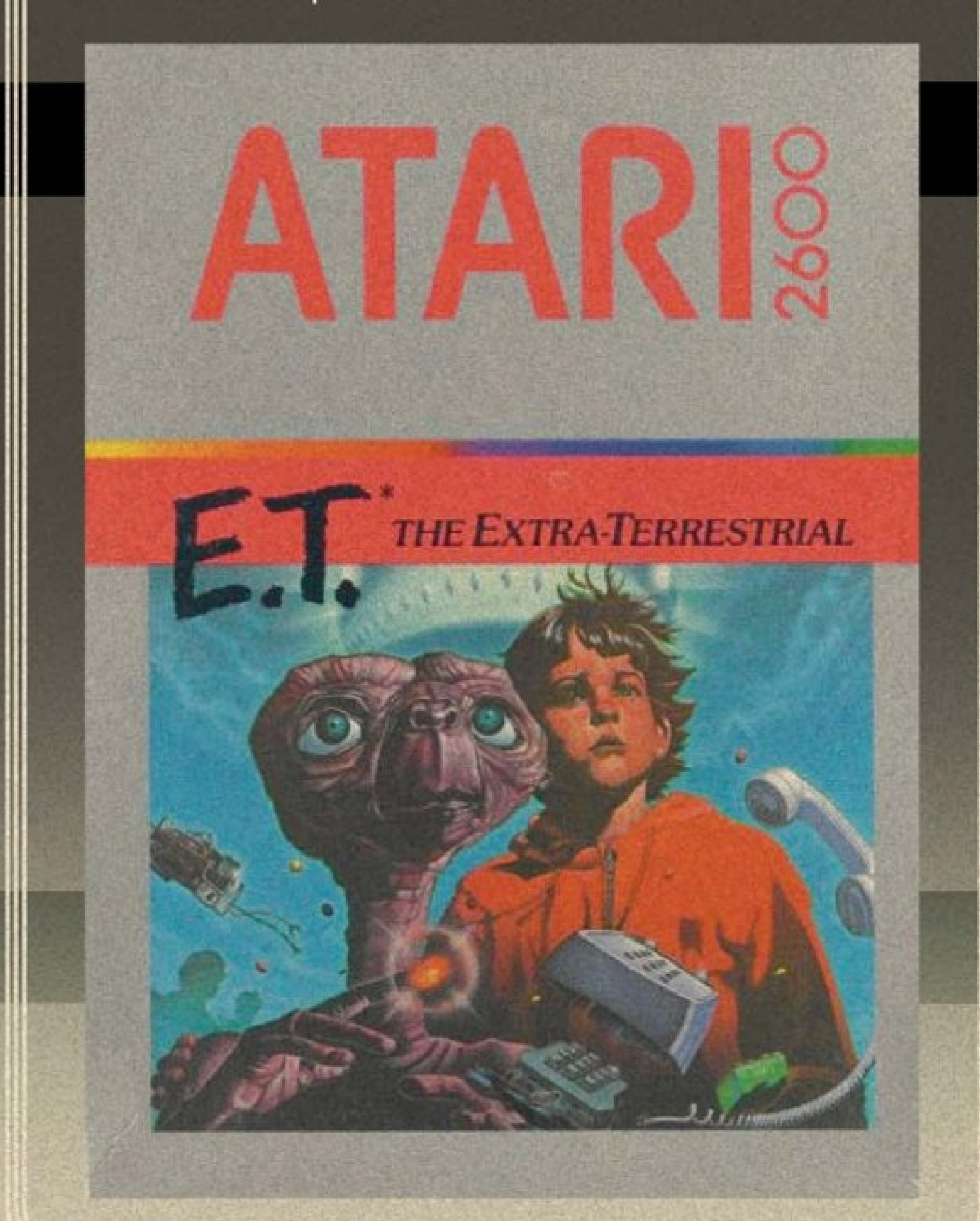
ATARI LYNX

WE'VE SAID IT time and time again, but the Atari Lynx, despite being large, expensive and a battery-sucking monster, is a fantastic portable home to a wealth of impressive arcade conversions, and some enjoyable exclusive titles too. Developed with Epyx Games, it was the first portable to feature a colour display and an integrated backlight. Suffering from a lack of third-party support, though, and sharing a release year with the far cheaper and more pocket-friendly Game Boy meant the Lynx sadly bombed and was eventually forsaken by Atari Corporation after an unsuccessful 1990 relaunch with the redesigned Lynx II.



E.T.: THE EXTRA-TERRESTRIAL

ATARI IS A company as famous for its failures and missteps as its wins and successes. When thinking of a list of commercial videogame super flops, one title always springs to people's minds. Based on the popular Steven Spielberg movie, *E.T.* was a rushed production, reputedly developed in just five weeks. Trying to lure Spielberg away from Universal, Warner Communications' head, Steve Ross, brokered his own deal with the director to secure the licence for a considerable sum of money. The deal, in which one condition was that it would be ready for the festive season, was forced on Atari Inc. Knowing it would have to sell a lot of copies, it signed off on an order for some 5 million cartridges. However, the game went on to sell just over a fifth of that number, and of those that did sell, a large number were promptly returned to Atari with complaints that the game wasn't enjoyable. With Atari left to stomach the loss and embarrassment, its reputation was tarnished and its profits never recovered.



EASTER EGGS

ATARI INC WAS infamous for not crediting its programmers for their work. However, disgruntled coders got around this by incorporating hidden messages in their games. The first well-known example of this happening in a home videogame was in the VCS game *Adventure*, the famous Easter egg seeing its programmer, Warren Robinett, credited for making the game. According to Robinett, it was Atari that dubbed these secrets 'Easter eggs', with the term relating to the fact that players would hunt them out.



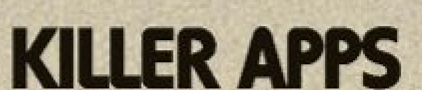
KEE GAMES

THOUGH INITIALLY THOUGHT to be a competitor of Atari Inc, Kee Games was actually a subsidiary. Headed by Joe Keenan, Bushnell's next-door neighbour, the company was set up as a way for Atari to circumvent the exclusivity terms laid down by arcade distributors. By Kee releasing a number of Atari game clones, Atari could profit from deals with multiple distributors. When this canny business manoeuvre was discovered in 1974 and Kee started doing its own popular games like *Tank*, Kee Games was folded into Atari and Keenan was promoted to president.



STAR WARS ARCADE GAMES

BEING SUCH A dominant force in the videogame arena enabled Atari Inc to secure many movie licences, and by far the most lucrative was *Star Wars*. Atari released two similar vector shooters based on *A New Hope* and *The Empire Strikes Back*, and a horizontal raster shooter based on *Return Of The Jedi*. *Star Wars* was released in 1983 and allowed players to re-enact the Death Star assault from the movie's finale. Widely regarded as one of the best vector games ever, it featured digitised speech and music from the movie, colourful vector graphics and, thanks to that lavish sit-down cab, immersive gameplay.



KILLER APPS

ATARI INC CREATED one of the first examples of a 'killer app' when it purchased the *Space Invaders* licence and released a home version for the 2600. Its success paved the way for a steady stream of arcade conversions on the console – many from Atari's own arcade catalogue but just as many licensed from other developers too. Probably the most infamous was the 2600 port of *Pac-Man*. Though it became the bestselling game on the 2600, it is regarded as a disappointing version and was critically blasted. The map was simplified, the dots became wafers and the ghosts flickered like… well, ghosts.

9-PIN JOYSTICK PORT

IT MIGHT SEEM throwaway, but the 9-pin plug that Atari Inc helped popularise through the 2600 made a huge impact on the gaming industry. Virtually everything, from the Mega Drive to the 3DO, supported it, meaning you could effectively plug a 2600 joystick into your console and start playing. It would be many years later before consoles and PCs started using the now-standard USB format.



A NEW AUDIO-VISUAL EXPERIENCE FROM ATARI

ATARI VIDEO MUSIC

THANKFULLY NOT AN embarrassing promotional music video starring the So Solid Atari Crew, but an audio visualisation unit released by Atari in 1975. The brainchild of Bob Brown, inventor of *Home Pong*, Atari Video Music could be hooked up to a stereo and television, and by adjusting a single colour and two contour dials, it was possible to create trippy images on your telly to impress your friends when you hosted cocktail parties. Coincidently, many years down the line Jeff Minter created a similar concept with the Virtual Light Machine program for the Jaguar CD, which came integrated into its hardware.



VECTOR GRAPHICS

ATARI DIDN'T INVENT the use of vector graphics in arcade games – that honour goes to Cinematronics – but the slew of successful vector games it released throughout the Eighties certainly resonated most with gamers. With soaring hits like *Asteroids*, *Tempest*, *Battlezone* and *Star Wars*, Atari's vector output forms a large part of its most iconic and popular arcade games, and not only helped to popularise the graphic style but also cemented Atari's prominence in arcades.

ATARI 5200

AS A RIPOSTE to the booming personal computer market, in 1979 Atari released the Atari 8-bit family of personal computers, kicking off with the Atari 400 and 800 models. However, by the early Eighties a slew of new games consoles had entered the market, and Atari quickly realised that if it was to protect its console market share it would have to release a successor to the 2600. In 1982, the company released the Atari 5200, which utilised technology that was heavily cribbed from the 400 and 800. Despite Atari's strong status in the market, the 5200 wasn't as successful as its predecessor. Many cite as the main causes a shortage of new software and its lack of backwards compatibility with Atari 2600 titles.



JAY MINER



BEFORE THE TALENTED graphic chip designer became the founding father of the Amiga Corporation, Jay Miner was responsible for leading the design team of the television interface adaptor (TIA), the clever computer chip inside the VCS that was responsible for everything from its graphics, animation and colours to sound and controller registers. At the time when the VCS was in development, RAM was expensive and the TIA's clever design, which forced programmers to write their own OS each time, offering amazing flexibility and allowing Atari to keep the cost of the machine affordable for consumers. Miner later developed the concept with display lists for Atari's 8-bit computers, and later still with the Amiga.

COMICS

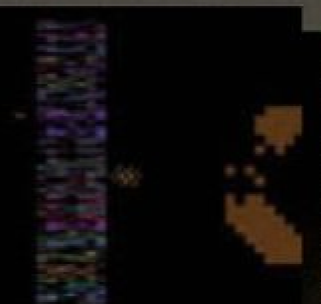
MORE CLEVER MARKETING saw Atari commission a series of comic books to package with its VCS games. Several were themed on videogames, including *Centipede*, *Swordquest* and *Yars' Revenge*, and there was also a four-part comic book series titled *Atari Force*, which starred a band of intergalactic hero types. Packaged with the sci-fi games *Defender*, *Star Raiders*, *Berzerk*, *Galaxian* and *Phoenix*, *Atari Force* was later spun into a full comic book series. A total of ten comics were created for VCS games and all were published by DC Comics, a subsidiary of Warner.



RAY KASSAR

KASSAR REIGNED FROM 1978 to 1983, first as president and later as CEO, shifting the company away from game development to focus on sales of Atari products. Although Kassar was responsible for Atari's sales growth from $75 million to $2.2 billion in three short years, he's now infamous for his resignation over allegations of insider trading and the indirect forming of rival Activision. When David Crane, Larry Kaplan, Bob Whitehead and Alan Miller asked for commission on their games, Kassar said: "You are no more important to that game than the guy on the assembly line who puts it together." The group left to start Activision, the first third-party publisher.

YARS' REVENGE



DEVELOPED BY HOWARD Scott Warshaw, and starting out as a port of *Star Castle*, *Yars' Revenge* went on to become the 2600's bestselling original title after some inspired design. Despite being played over a single screen, it has deep gameplay and a detailed back story, which got explained in a comic book that came with the game. Telling the tale of a race of insect humanoids who are trying to save their home from malevolent aliens, your mission is to destroy an enemy mega-weapon. This is achieved by creating an opening in the target's shield and then firing a weapon that gradually moves up and down the far left side of the screen, all the while avoiding attack from its swirling disc weapon and harassment from an invincible enemy drone. If you want to see what a 2600 is really capable of, boot up *Yars' Revenge*.

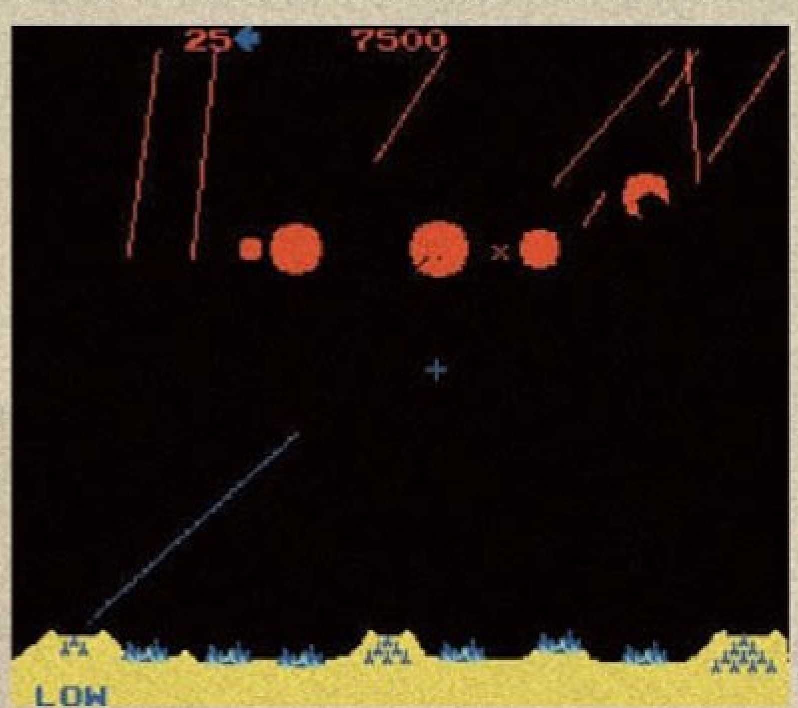


DEMAKES

LIKE MOST RETRO consoles, the 2600 enjoys a healthy homebrew scene, made up of passionate programmers looking to continually eke more from the console's clever custom computer chip. More recently, though, the machine has become a popular platform for demakes, the art of re-creating current games on older platforms. You can play 2600 versions of *Portal* (*Super 3D Portal 6*), *Mega Man* and even *Halo* (*Halo 2600*) on the machine.

MISSILE COMMAND

A COLD WAR nightmare led Dave Theurer to create *Missile Command* – a frantic and challenging trackball-controlled shooter that tasked players with protecting cities from ballistic missiles. One of the bleakest coin-ops of the age, the following year gamers were flocking to play the more lighthearted likes of *Pac-Man*, *Donkey Kong* and *Frogger*. *Missile Command* has become synonymous with the Atari brand and had its popularity raised with impressive conversions for the 2600 and 5200.



CHUCK E. CHEESE'S

CHUCK E CHEESE'S

NOLAN BUSHNELL WAS a huge fan of amusement parks and admirer of The Walt Disney Company. In fact, after graduating from university, Bushnell sought employment at Disney but was unsuccessful. To finally scratch that itch, in 1977, while still working at Atari, he set up Chuck E Cheese's Pizza Time Theatre, a pizza restaurant chain fitted with various theme park-style attractions, including arcade and redemption ticket machines, rides, and animatronics shows, all aimed at children as well as cleverly operating as a distribution outlet for Atari games. When Bushnell left Atari in 1978, he purchased the business from Warner Communications and grew it through the restaurant franchise model. However, the speed at which the videogame industry was evolving put a considerable strain on the business, and in 1983 the company filed for bankruptcy. Its assets were then purchased by rival pizzeria chain Showbiz Pizza Place. The chain still operates today, now under the name Chuck E Cheese's.

The Camp Experience That Lasts a Lifetime.



ATARI COMPUTER CAMPS

ATARI COMPUTER CAMP

FORMING PART OF Atari's assault on the education market, Atari Computer Camps were where parents could cart off their kids for a few weeks each summer. The camps took kids from between 10 and 16 years old, and ran for two, four or eight-week sessions. In addition to the traditional camp activities, the schedule included a series of computer workshops, as well as lectures from programmers working in the games business.

TED DABNEY

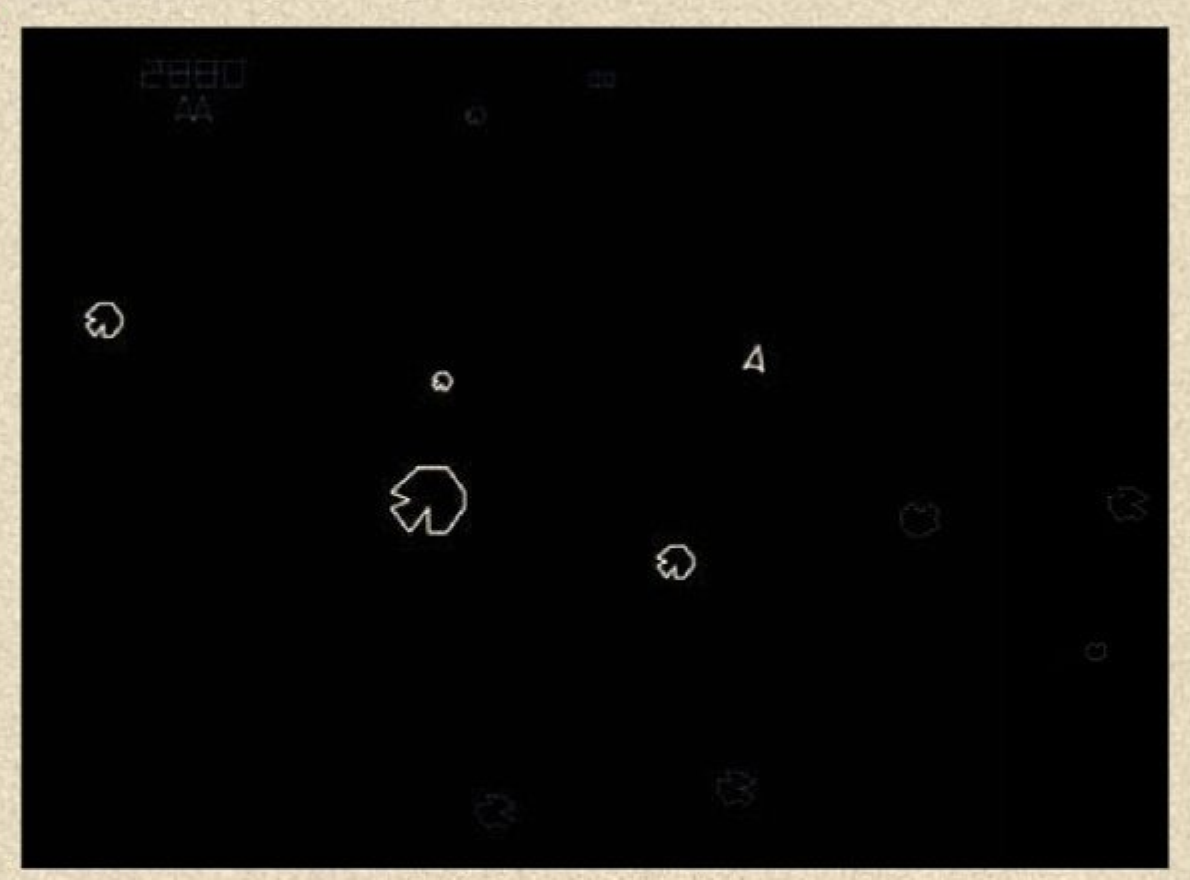


VIRTUALLY EVERYONE ASSOCIATES Atari with Nolan Bushnell, but that tells only half the story. Atari Inc was actually co-founded by Bushnell and partner Ted Dabney, who had first set up Syzygy Engineering together. While Bushnell became the face and mouthpiece of Atari, Dabney stayed in the shadows and has only recently begun to recount his memories of the fast-changing period.

NINTENDO ENTERTAINMENT SYSTEM

THIS IS A PARTICULARLY interesting nugget of information, as it could have single-handedly defined Atari's fortunes after the videogame crash. Atari had already released several Nintendo games on its Atari 2600, so Nintendo offered a one-sided OEM deal, which saw Nintendo as the sole supplier of all parts and internals and Atari being allowed to simply design the case and put its name on it. The only proviso? It had to be ready by Christmas '83. Unfortunately for Atari, the loss of Ray Kassar and the lateness of his replacement – Jim Morgan took a two-month vacation before starting in September – meant that Atari had no time to make the Christmas season. Nintendo head Hiroshi Yamauchi decided to go it alone, and the rest is history. We can only imagine what might have happened to Atari's fortunes if it had signed that contract…

Nintendo ENTERTAINMENT SYSTEM™ NES VERSION



ASTEROIDS

WHEN LYLE RAINS, Dominic Walsh and Ed Logg came up with the idea for their vector-based shooter, little did they know that it would go on to become Atari's most successful arcade game. Hailed as one of the most important games of the famed 'golden age' of the arcades, it sold over 700,000 units and influenced numerous other games of the period.

ED LOGG



IF ED LOGG had never decided to make games, the arcades of the world would have been much sadder places, as he created some of Atari's best games. There would have been no *Asteroids, Gauntlet, Centipede, Road Runner, Xybots,* or many other games. The talented programmer is still around, having recently joined Innovative Leisure to make iOS games with many other Atari alumni.

ATARI ST

THE ST WAS one of the earliest 16-bit computers and the first to feature integrated MIDI support. Created by Shiraz Shivji, it was released by Atari in 1985 and became highly lauded for its excellent music software, which would be used by a number of musicians, including White Town, The Berzerker, Luke Vibert and Mike Oldfield. Its head start on the Amiga also meant that it hosted a number of excellent titles that weren't available on its rival, like *F-15 Strike Eagle*, *Get Dexter* and *Oids*.



TENGEN

WHEN WARNER COMMUNICATIONS retained the arcade division of Atari Inc, resurrecting it as Atari Games, it was bound by an agreement with Jack Tramiel that it would not encroach on the domestic videogame market using the Atari name. To get around this and try to profit from publishing Atari arcade games on home consoles and computers, it set up a new label. That label was Tengen, borrowing another term from go. Tengen had very close ties with Namco through Warner's selling of Atari Games to Namco in 1985, and Tengen was taken to court by Nintendo twice, once for releasing unlicensed games for the NES and on another occasion over a copyright breach in *Tetris*. The label was disbanded in 1994 by Time, following Warner Communications' merger with magazine publisher Time Inc.

GO

THE ATARI NAME is said to have derived from a 'check mate' term used in the ancient Chinese draughts-style game, go. The term means 'to hit'.



PITFALL HARRY

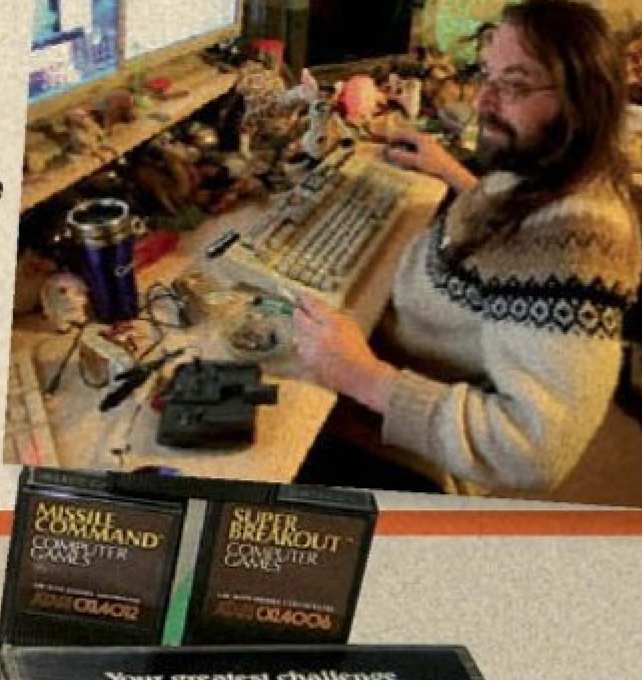
THOUGH HE WASN'T a creation of Atari, David Crane's Pitfall Harry was the closest thing the Atari 2600 ever had to a mascot. Selling over 4 million copies, *Pitfall!* is the bestselling third-party 2600 game, and spawned a popular platforming franchise that this year celebrates its 30th anniversary.

THE ATARI 8-BIT FAMILY

THE EARLY ATARI 8-bits originated from a chip that was supposed to power Atari's follow-up to the 2600. Ray Kassar had other ideas, however, wanting to instead use the chip in a computer to combat Apple's range of micros. The original systems were released in 1979 and were called the Atari 400 and 800. These were later replaced by the 1200 and numerous other XLs in 1982, and later the XE range, which began appearing from 1985. Numerous classics made their debut on Atari's family of micros, including *Archon: The Light And The Dark*, *Rescue On Fractalus!*, *Boulder Dash*, *Koronis Rift*, *Bruce Lee*, *Ballblazer* and *Spy vs Spy*.

JEFF MINTER

JEFF MINTER IS an interesting offshoot of Atari's reach, because he wasn't involved with either company until he worked for Atari Corporation. And yet Atari Inc is still important here, as many of its games influenced a lot of Minter's most memorable classics. *Gridrunner* was inspired by the excellent *Centipede*, while *The Empire Strike Back* led to the trippy *Attack Of The Mutant Camels*. It was *Tempest*, though, which would impact greatly on Minter's life, as aside from his own variations – most notably *Space Giraffe* – he created the truly sublime *Tempest 2000*, which was easily the best game to grace Atari's ill-fated Jaguar.



THE CRASH

DESPITE WHAT YOU might think, prior to the crash the domestic industry hadn't been in decline. In fact, it had never been in better health. The early Eighties gave rise to more consoles, more peripherals and more games than ever. To stay at the top, Atari spent big on the most attractive licences and confident over-ordering of stock. Rushing product out the door to meet profitable holiday seasons resulted in cancelled orders from retailers and worthless assets piling up in warehouses. Saturation, overproduction, confused consumers and poor product soon took their toll on the company, and in a single year, Atari's profits went from $2 billion in 1982 to a loss of $539 million in 1983.







SPECIAL THANKS TO MARTIN GOLDBERG FOR HIS ASSISTANCE WITH THIS FEATURE.

» EXPOSING THE RETRO GAMES THAT ARE BEST LEFT IN THE PAST

THE FLINTSTONES

The first rule of any game is that it has to be fun. It matters not what fancy licence you dress a game in. If a developer somehow managed to work some licensing magic to pull off the coup of a lifetime and make *Indiana Jones, James Bond And Star Wars' Awesome Adventures In The Playboy Mansion*, but the gameplay tasked players with helping Boba Fett scrub dirty dishes and Indiana Jones sieve leaves from the party swimming pool in a series of dull mini-games, the concept would fall soundly flat on its face.

The Flintstones is a terrible idea for a game from start to finish, with its four levels, which, yes, each take the form of a terrible mini-game, looking and playing like they were drawn and programmed during the downtime on a busy Christmas morning. The premise is basically just a frustrating Saturday in the life of everyone's favourite short-tempered prehistoric family man, Fred Flintstone. With a day of bowling with his best mate, Barney Rubble, planned, a spanner is tossed into Fred's plans by his badgering wife, Wilma, who reminds him of his DIY duty to paint the wall in their living room. A living room that, incidentally, doesn't have a ceiling – surely this would be priority job number one? Anyway, choosing to place his pot of paint a fair distance from the wall and do the job in front of a mischievous baby Pebbles, who keeps escaping her playpen to scribble on the wall, Fred doesn't make the task easy for himself, especially as he animates with all the fluidity of a Sherman tank. Moving Fred is agonising enough, but aiming his paintbrush is just rage-inducing. And he always seems to run out of time right before finishing the job too, with failure frustratingly resetting him back to the start again. Argh!

If, by some stroke of luck, Fred manages to finish the chore, he is finally granted authorisation to leave the house. But having wasted the morning painting and babysitting, he's forced to race to the bowling alley in his foot-powered car before it shuts. Unfortunately, though, the road surface is in terrible condition, strewn with rocks. Hitting one will cause the car's back wheel to ping off, leaving Fred the chore of lifting his car using a jack, reattaching the tyre and continuing with his journey. Hardly what you would class as high-octane stuff.

Well, the next stage is the best of a bad bunch: a rubbish bowling game with an imprecise rolling system. Bowling against Barney, you set the swing and speed of Fred's bowl, and then watch as the game seems to ignore it and randomly decide how many pins he knocks down – it doesn't help that every time the ball hits the pins a 'BAM' graphic gets plastered over them. Though quite fun initially, this section soon gets boring. It also goes on forever, as you are forced to watch Barney's turn, and there aren't many things in life as boring as watching a computer character bowl.

If you do manage to beat Barney, the story then takes a turn for the strange, with Fred thrown into a pathetic two-minute platform sequence that sees him trying to rescue Pebbles from a T-shaped castle, complete with the naffest enemies and stiffest controls you'll ever witness. It's a yabba dabba doo crime.

GAME INFO



- » **SYSTEM:** MASTER SYSTEM
- » **RELEASED:** 1993
- » **PUBLISHER:** SEGA
- » **DEVELOPER:** GRANDSLAM



WHAT YOU SHOULD HAVE PLAYED

For a good *Flintstones* game, why not try this decent Mega Drive platformer by Taito? With colourful cartoon graphics that really capture the feel of the show, some fun levels to tackle and bosses to fight, and even a bit of humour, it's a great homage. Its premise even sees Fred completing a series of errands for his friends and family, finding everything from Wilma's necklace to Barney's fishing hook, so the whole job aspect of the naff Master System game gets touched on too. This is a much better *Flintstones* game, though.



» [SMS] This looks and plays like a budget CPC game. Even if it was, it would still be terrible. Remember, folks, this was a 40 quid console release.

» THE POINTLESS PARTS



DINO-SHITE
The intro is this terrible re-creation of the cartoon's opening sequence. It's yabba dabba doo-doo!



TOO MUCH LIKE HARD WORK
The horrible controls become evident seconds into the first stage. Painting a wall in real life is actually more enjoyable.



WHAT A TOOL
Enemies show a developer not making the most of the licence. Giant nuts and bolts… in a world populated by dinosaurs?

THE MAKING OF DOUBLE DRAGON

双截龍

It's the most iconic beat-'em-up of all time and spawned the most famous videogame siblings after the Marios. Therefore, Stuart Hunt was honoured to study the fascinating story of Double Dragon under the tutelage of its legendary creator, Yoshihisa Kishimoto



IN THE KNOW

» **PUBLISHER:** TAITO CORPORATION
» **DEVELOPER:** TECHNOS JAPAN
» **RELEASED:** 1987
» **PLATFORM:** ARCADE
» **GENRE:** BEAT-'EM-UP

Arcade games are always best played together. From *Pong* to *Bubble Bobble*, the most popular coin-op games in history have allowed friends – or sociable strangers – to insert their cash, grab the controls and work with or against each other until the coffers vanish or the closing credits roll. Multiplayer didn't just bring a feeling of camaraderie or a stronger sense of competition, but it also changed the atmosphere inside the virtual playground. For a perfect example of this, you need only look to *Double Dragon*. Played alone, it was a robust beat-'em-up boasting detailed visuals and plenty of variety, but when played with a second player its brilliance really shone.

As most beat-'em-up aficionados are probably aware, *Double Dragon*'s roots can be traced back to Technos Japan's earlier arcade brawler, *Nekketsu Koha Kunio-Kun* (*Renegade* in the West). However, *Double Dragon*'s relationship with the seminal scrolling fighter runs deeper than simply being its technical successor. When the feuding Japanese high school delinquents and comic schoolyards of *Kunio-Kun* were replaced with leather-clad gang members and glum city streets to make it more marketable in the US, Techno Japan's bosses quickly realised this reskinning process was both time-consuming and costly, and come sequel time a different approach would be needed. Ultimately, it was this that served as the trigger for *Double Dragon*.

"*Kunio-Kun* was firstly for the Japanese market only," explains Yoshihisa Kishimoto, the creator of *Kunio-Kun* and *Double Dragon*. "But when we decided to export it, we had to spend a lot of time creating new characters and backgrounds, and for Technos Japan it was a very big waste of time and money. So after *Renegade*, when my boss, Kunio Taki, saw I was working on *Kunio-Kun 2*, he told me he wanted me to create a game that would be accepted worldwide. So the concept of the initial *Kunio-Kun 2* became *Double Dragon*. The two-player cooperative gameplay was an idea from our marketing department. It's fun to play together – to help each other to beat the game – and it also allowed game centres to **potentially double their incomes."**



» [Above] Kishimoto, seen here in black, admits he was a bit of a delinquent as a teenager, and this had a big influence on his games.

» [Right] Florent Gorges, author of *The History Of Nintendo* books, recently released a comprehensive book detailing the life and games of Kishimoto.

» A rare picture of the *Double Dragon* staff. Kishimoto is standing in the centre.

» [Arcade] The famous red sports car in the garage is actually the car from *Road Blaster* (aka *Road Avenger*), on which Kishimoto worked as director.

» [Arcade] Poor Marian gets slugged in the stomach and carried off by the Black Warriors. Violent stuff in 1987.

With the *Kunio-Kun* follow-up to feature cooperative gameplay and aesthetics with worldwide appeal, Kishimoto decided to move away from the established franchise. Looking for a new direction, he found inspiration in the biggest martial arts actor of all time: "When I was a child, I saw the Bruce Lee movie *Enter The Dragon*. I became his biggest fan. He made the most incredible action movies in the world. And I wanted to become like him, and create the most incredible action games in the world. So, because Bruce is a worldwide famous actor, he inspired me for my new game. It's like an homage, you know? His nickname is 'little dragon', right? And because the concept of *Kunio-Kun 2* was a two-player game, I decided to create the 'Lee brothers' and call my game *Double Dragon*."

With a new title and new heroes, *Double Dragon* would naturally have to tell its own story. For this Kishimoto used the familiar damsel-in-distress scenario. However, rather than forgettable street punks, *Double Dragon*'s antagonists were far more characteristic. Dubbed the Black Warriors and headed by a machine-gun-wielding bad guy called Willy, its members comprised a small but memorable bunch that included whip-carrying Linda, henchmen Williams and Roper, and hulking great man-monster Abobo. Setting the scene brilliantly, the Black Warriors also showed a capacity for violence through a memorable in-game introduction that showed them visiting the Lee brothers' turf, slugging their girlfriend Marian square in the stomach, and then carrying her off to their hideout.

While gang numbers were massaged using economical palette swaps, this could be forgiven because of the quality of *Double Dragon*'s sprite designs and graphics. *Double Dragon* was a clear visual step up from *Kunio-Kun*; its levels looked more vibrant and detailed, and were decorated with nice touches and details that really brought its world to life.

"There are a lot of funny details in *Double Dragon*," muses Kishimoto. "For example, did you notice the red car in the first screen of the game inside the garage? It's the car from my first LaserDisc game, *Road Blaster*."

As well as an attention-grabbing introduction, *Double Dragon* ended in style, with a memorable twist ending if the game was played cooperatively. It saw Billy and Jimmy forced to turn on each



» [Arcade] Before working for Technos Japan, Kishimoto cut his teeth at Data East.

» [Arcade] *Double Dragon* and *Road Avenger* both share revenge-themed plots.







» [Arcade] *Cobra Command* and *Road Avenger* received home ports on Mega-CD.



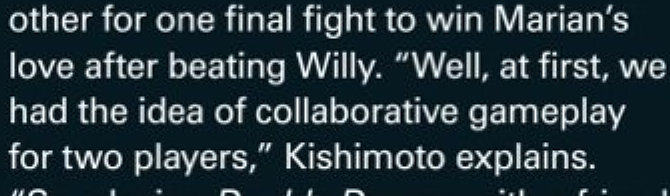
DEVELOPER HIGHLIGHTS

RIVER CITY RANSOM (PICTURED)
SYSTEMS: NES
YEAR: 1989

WWF SUPERSTARS
SYSTEMS: ARCADE
YEAR: 1989

THE COMBATRIBES
SYSTEMS: ARCADE, SUPER NES
YEAR: 1990

other for one final fight to win Marian's love after beating Willy. "Well, at first, we had the idea of collaborative gameplay for two players," Kishimoto explains. "So, playing *Double Dragon* with a friend was like a fight between human players against a computer. But when you reach the last stage and defeat the last boss, tough guys have to think: 'Okay, we were stronger than this machine, but now we have to know who is the best between us!' And to know the real winner of the game, we had to make them fight each other. I also wanted the game to have an unexpected ending. It was, I think, a nice idea."



> It was the first beat-'em-up with multi-screen-length scrolling, so it was difficult to establish what was best for that

In addition to its innovative cooperative gameplay, *Double Dragon* introduced a number of other ideas that became staples of the genre throughout the next decade. Chief among them was the fact that the Lee brothers could pick up and use an assortment of different melee weapons to biff their enemies, from whips and baseball bats to steel pipes and even sticks of dynamite.

"At the end of the development of *Kunio-Kun*, I noticed a funny graphic detail on the screen: when you hit a guy with a weapon and he falls down, his weapon is on the floor, next to the enemy," says Kishimoto. "One day I just said to myself: 'Hey, wouldn't it be fun if the player could take that weapon and use it against the enemies?' But because I was too late to program such a new gameplay feature, I decided to use it for *Kunio-Kun 2*."

Add to the weapons a variety of fighting moves, including hair pulls, elbow strikes and flying kicks, and *Double Dragon* boasted one of the most robust combat systems of any fighting game of the time; one made all the more satisfying by the fact that one player could grab and restrain an enemy while another joined in and gave the struggling thug a good pasting.

One other impressive aspect of *Double Dragon* was its stages. While the fighting environments in *Kunio-Kun* stretched just two screens and didn't scroll constantly, Kishimoto desired for *Double Dragon* to play out in a more elaborate environment. On reflection, this proved to be another design masterstroke, as the gradually changing backdrops and interactive hotspots, from climbable ladders to deadly conveyor belts, heightened the action and kept *Double Dragon* feeling continually rewarding. Uniquely, each of *Double Dragon*'s four stages segued into the next, and took the form of one gigantic level. It comprised four distinct areas made up of a street, factory, woodland and finally the gang's hideout, with each section punctuated by a boss fight. Never did the camera cut from the brothers and pull gamers from the world. However, settling on the best way for Billy and Jimmy to progress proved to be one of the biggest challenges for Kishimoto and his team.

"*Double Dragon* was the first beat-'em-up with real multi-screen-length scrolling," says Kishimoto, "so it was difficult to establish what was best for that. Forced scrolling? Free scrolling? For example, if we used free scrolling then the user would be able to walk directly to the end of the stage without fighting. But because the positions of the enemies are scripted, they appear when you reach certain points. So, if the user doesn't fight, all the enemies will appear on the screen and follow Jimmy and Billy. There will then be too

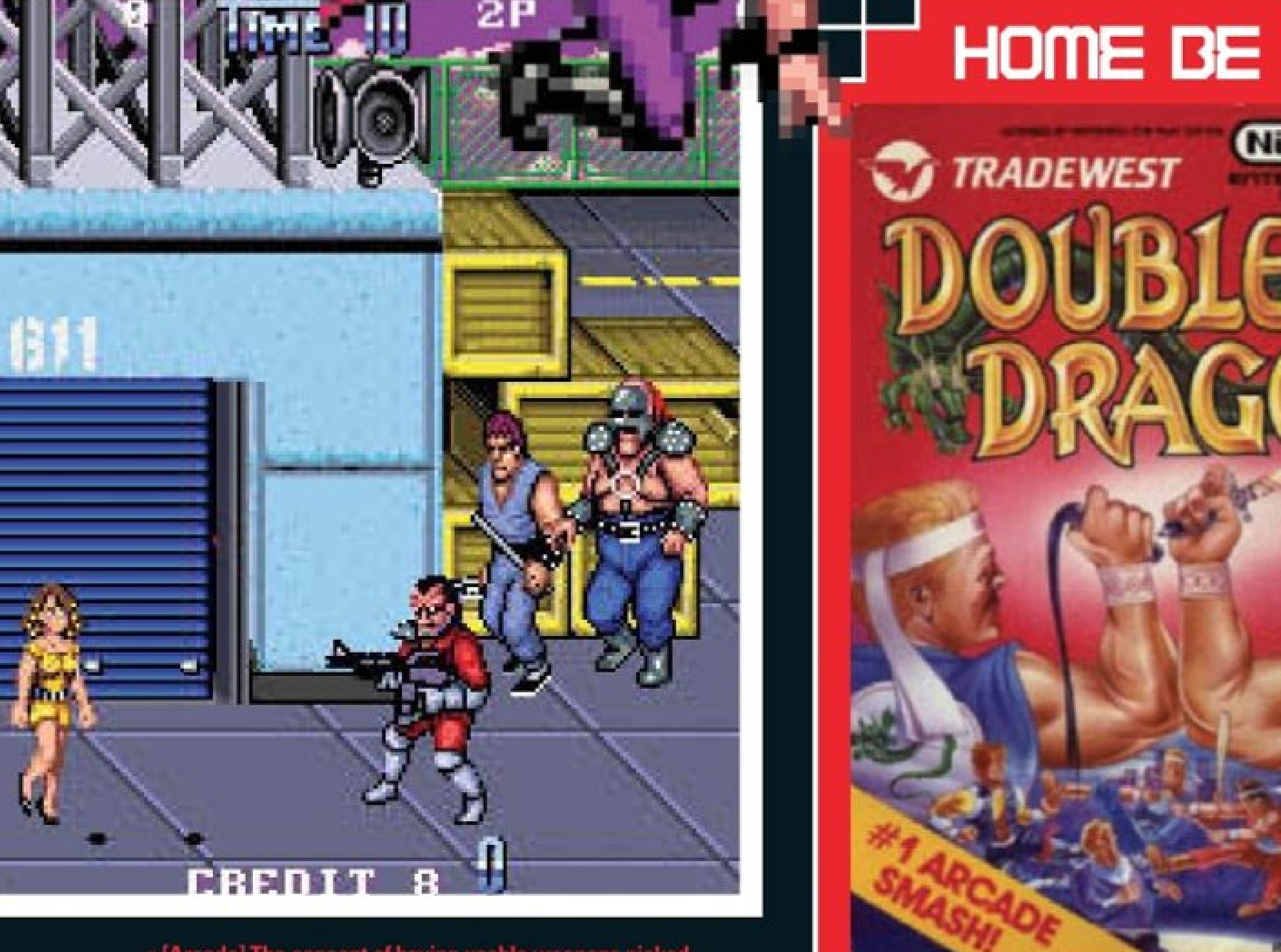


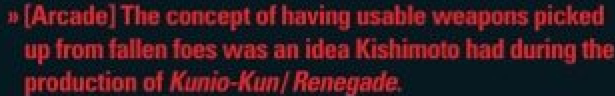


» [Spectrum] Dean Swain's long-gestating Spectrum remake of *Double Dragon* is close to completion. It's looking mighty fine as well.



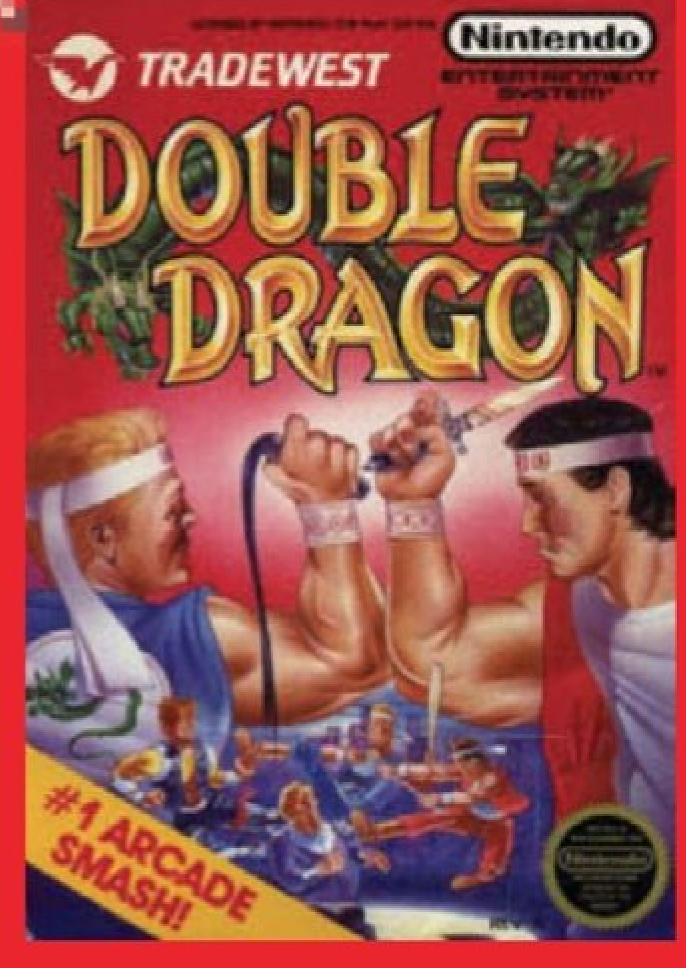
» [Arcade] Following Willy's defeat, the Lee brothers are forced to fight to prove who is worthy of saving Marian.




» [Arcade] The concept of having usable weapons picked up from fallen foes was an idea Kishimoto had during the production of *Kunio-Kun/ Renegade*.

HOME BE DRAGONS

Porting the Lee twins





DOUBLE DRAGON'S POPULARITY led to a large number of home conversions, from the humble Atari 2600 to late appearances on the Mega Drive and Atari Lynx. Of all the ports released, Kishimoto was only involved in the NES conversion, which differed in a number of ways from the arcade original.

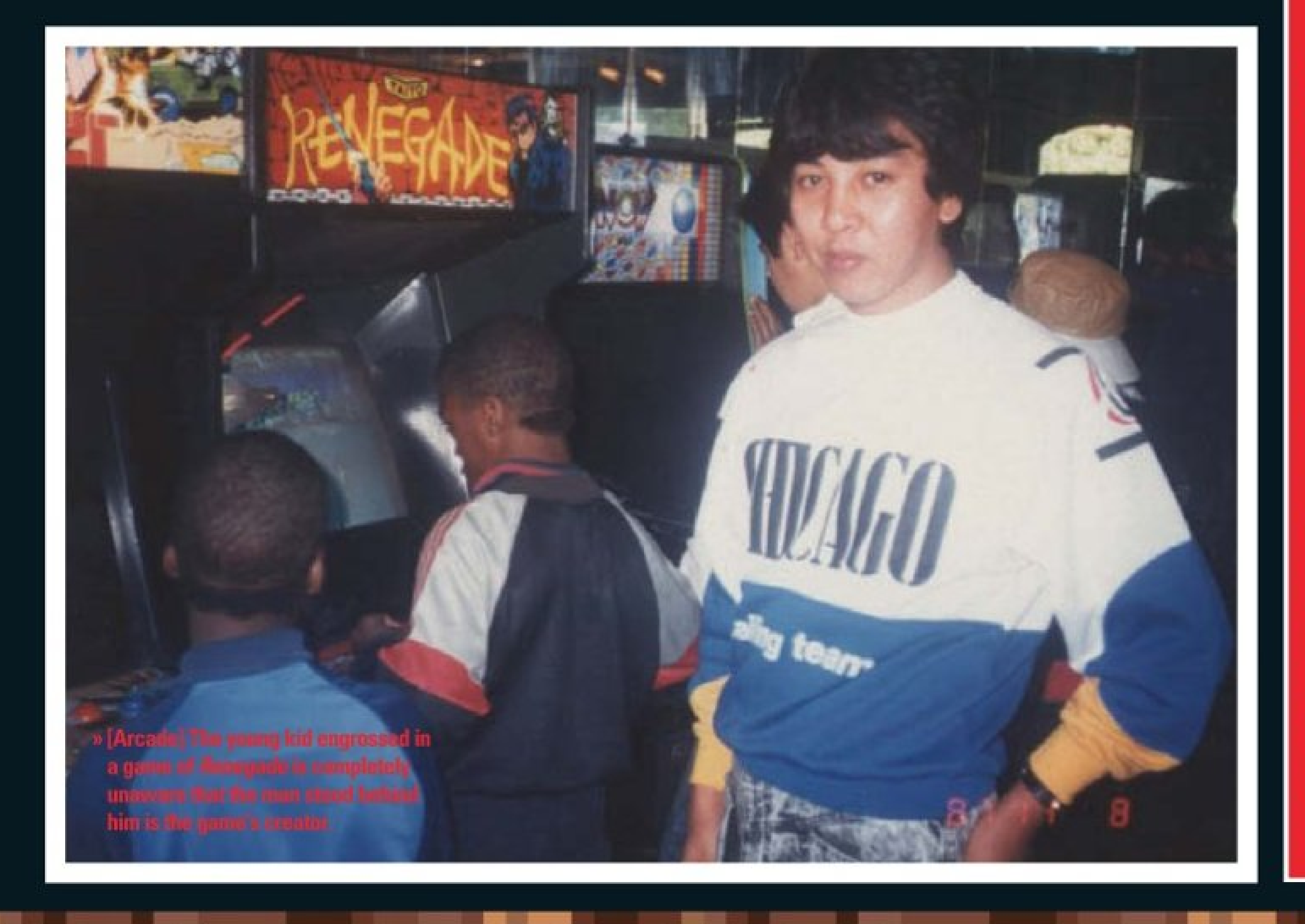
Cooperative multiplayer was dropped, with players instead having to take it in turns to control Billy while Jimmy was forced to play the role of final boss once Willy was defeated. The level designs were also different, and a levelling system was introduced, which saw moves gradually getting added to Billy's repertoire as he progressed though the game. It also featured a second mode, which took the form of a one-on-one fighting game against the computer and allowed players to fight as either Billy or a selection of enemy characters, but oddly not Jimmy.

many sprites on the screen and it will make the game freeze. Today, *Double Dragon*'s concept and scrolling looks very natural, but at that time it was a pioneering idea. It took time to make those technical settings look as natural as possible."

Of course, with *Double Dragon* containing so much innovation, invariably something had to give. That something was the speed, with *Double Dragon* suffering from notorious bouts of slowdown whenever its action got too heavy. Kishimoto is keen to explain the reason why this occurred: "The point I want to mention is that our game was too big for our hardware. That's why the game often gets very slow. I wanted to input so many things, but because of those limitations it just wasn't possible. People don't know this, but to tell you the truth there were about a dozen *Double Dragon* versions. The first one was full of bugs. It took our programmer about one year and more than ten new updates before we could get to a completely debugged version!"

Following those various revisions and lengthy debugging process, *Double Dragon* was finally released into arcades in 1987, and quickly it garnered praise and fans. Despite the slowdown, players were won over by its ambition, charm and visuals, and showed their enjoyment by flocking to arcades to give it their loose change. And with videogames and martial arts films both enjoying popularity in America in the Eighties, Technos couldn't have timed *Double Dragon*'s release better. In fact, 1987 was a pretty fantastic year for videogaming, with the release of *Mega Man*, *Maniac Mansion*, *Metal Gear*, *Final Fantasy* and *Street Fighter*. Of all those classic games released, though, we would argue that *Double Dragon* was the biggest success story that year. It is seen as *the* defining beat-'em-up of the Eighties, and become one of the most recognisable arcade games of all time. So did Kishimoto have any inkling at all that the game would go on to be the phenomenon it was?

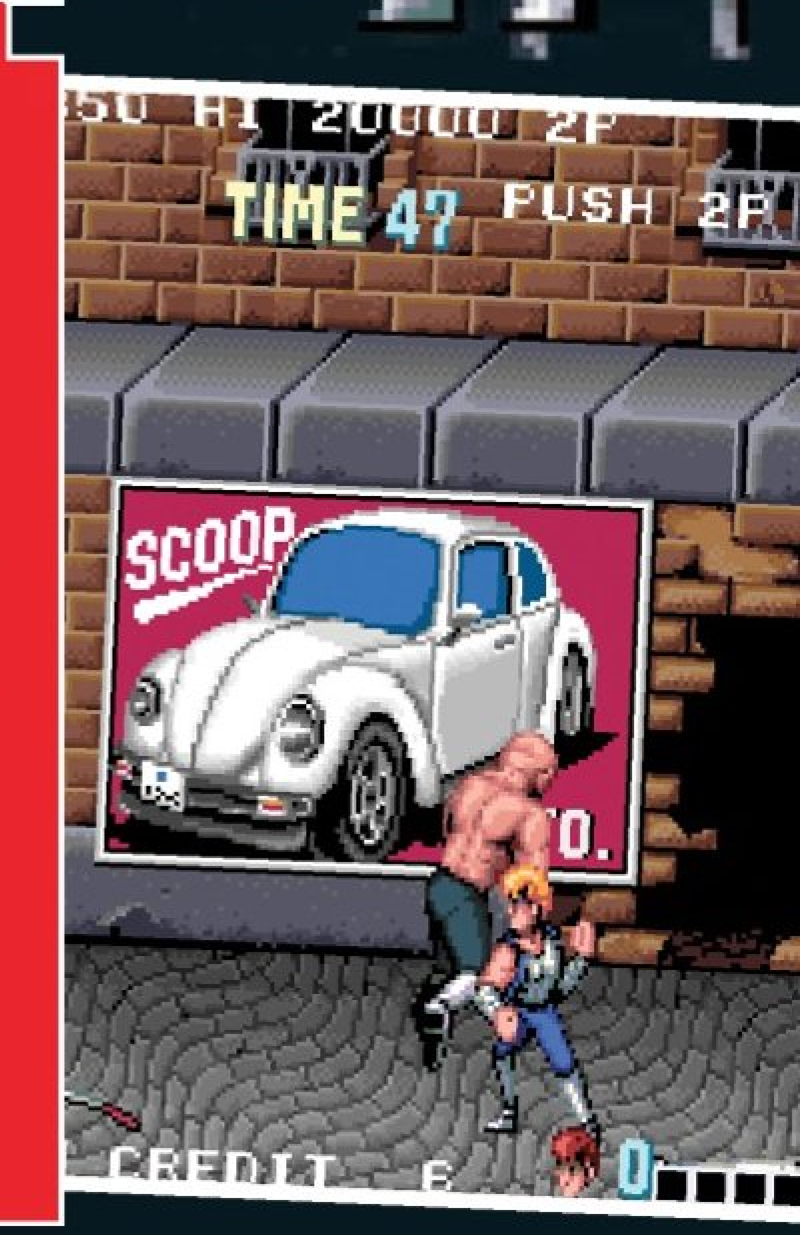
"Well, I wouldn't be honest if I said I never imagined it would



» [Arcade] The young kid engrossed in a game of Renegade is completely unaware that the man stood behind him is the game's creator.

KICKING MERCHANDISE

DOUBLE DRAGON MANIA would spin off a whole bunch of promotional merchandise, from T-shirts and embroidered badges to a board game from Tiger Electronics, a Marvel comic book series, and later even an animated TV series. Loosely based on the story of the NES game – Jimmy was separated from his brother at birth and trained up by the Black Warriors – the show produced even more merchandise, including a range of *Double Dragon* action figures, and also provided the seed for a terrible live-action movie released in 1994. Starring Scott Wolf and Mark Dacascos as the Lee brothers and *Terminator 2*'s Robert Patrick as the Shadow Boss, it's a poor and rightly mocked adaptation of the *Double Dragon* videogame, as it turns the cool and edgy arcade game into something that makes *3 Ninjas: High Noon At Mega Mountain* feel like *Lone Wolf And Cub*. It's so terrible that it almost – and we emphasise the 'almost' – makes you question the badness of the famously terrible *Street Fighter* movie released the same year.





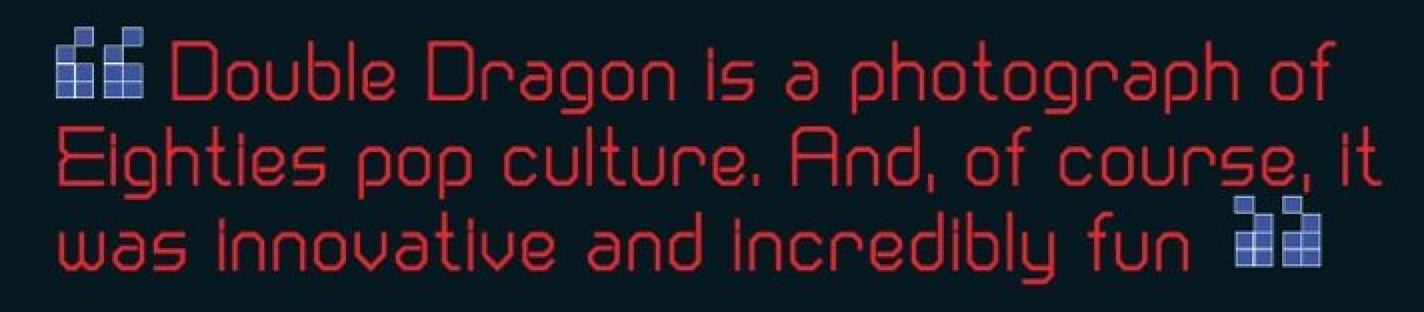
» [Xbox 360] Wayforward Technologies is planning to revitalise the franchise with the upcoming release of *Double Dragon Neon*. Needless to say, we are rather looking forward to it.

» [Arcade] Pushing its tech to the limit, *Double Dragon* suffered from slowdown whenever its action got busy.

become a hit," he responds. "Since the first days of the concept, I knew it would be wonderful, but I didn't imagine it would become as big a hit as it did. My real wish was to give users the best action game in the world. So we worked very hard to reach that goal."

Following its success, Technos released a *Double Dragon* sequel the following year. *Double Dragon II: The Revenge* saw the Black Warriors and Lee brothers continue their violent quarrel, and Kishimoto remain seated in the director's chair. The sequel once again featured an attention-grabbing opener, which showed Marian getting mercilessly gunned down by the gang. This set a darker tone for the second instalment, as the Lee brothers set out on a quest for vengeance. Also like the original, the mission was spread across four distinct areas, connected with no visible join, and closed with a surprise ending: the brothers forced to fight shadowy copies of themselves. The visuals benefited from a nice makeover – the colours looked more vibrant, the animations were smoother and the sprites more detailed – and the controls also received a tweak. This time Technos used a *Renegade*-style direction-based attack configuration that had a button for attacking left and another for attacking right, which was complemented by a range of new moves and weapons.

Technos released *Double Dragon 3: The Rosetta Stone* in 1990. It looked distinctly different from the previous two titles, and many beat-'em-up fans remarked that it looked and played more like *The Combatribes*, a separate scrolling fighter from Technos Japan released the same year, which was produced by Kishimoto. *Double Dragon 3* supported up to three-player co-op and introduced new hero Sonny, a yellow version of Billy and Jimmy, which sort of implies that the Lee twins are actually triplets. In addition to this, players could purchase new moves and playable characters by visiting item shops and spending credits. Unfortunately, *Double Dragon 3* wasn't as well received by fans, and it wasn't helped by Capcom releasing *Final Fight* in the same year. Therefore, it is seen by many as the point at which Technos was forced to hand over its beat-'em-up crown.



THE OCTUPLE DRAGONS

Our complete rundown of the entire Double Dragon series



Double Dragon (1987)

THE SEMINAL brawler started life as a direct sequel to *Kunio-Kun* (*Renegade*), before Technos Japan bosses intervened. Introducing the world to twin brothers Billy and Jimmy Lee, it was notable for its cooperative gameplay, usable melee weapons and elaborate stages.



Double Dragon II: The Revenge (1988)

THE BROTHERS were out for vengeance following the murder of Marian at the hands of Big Boss Willy. The sequel made improvements to the graphics, animations and enemy AI. It's a fantastic game, regarded by many as the best in the series.



Double Dragon 3: The Rosetta Stone (1990)

DOUBLE DRAGON 3 varied a lot from its predecessors. It featured three-player co-op, and introduced new playable characters. Aesthetically it shares more resemblance with *The Combatribes*, which was released by Technos Japan the same year.



Super Double Dragon (1992)

SUPER DOUBLE Dragon was a Super Nintendo exclusive, and can be looked upon as a reboot of sorts: Marian is kidnapped by new villain Duke, and the brothers must rescue her over seven new stages. It's a decent sequel with some great visuals and animation.



Battletoads & Double Dragon: The Ultimate Team (1993)

MORE *BATTLETOADS* than *Double Dragon*, though still a decent crossover, Jimmy and Billy teamed up with Rare's ninja toads to deliver a rollicking good brawler for the ageing NES. It was also released for the Game Boy, SNES and Mega Drive.



» [Arcade] *Double Dragon* spawned a raft of promotional merchandise, an animated TV show and a live action movie.



» [Arcade] Owing to its popularity, *Double Dragon* received plenty of home ports – some were good, but most were disappointing.

Despite this, and the closure of Technos Japan in 1996, the *Double Dragon* franchise endured. A further six games were released in the series, and it also spawned an animated show and a much-despised live-action movie. Kishimoto, meanwhile, left Technos Japan in the Nineties to work as a freelancer, trading under the alias of Plophet. During his career, which spans 30 years, Kishimoto has worked on more than 350 games. Today he can be found at Plophet Co., Ltd, a company he founded in 2011. His latest development is an iOS and Android game titled *ViER*, which is currently available to purchase from the App Store and Android Market. It's a board game that sees players competing to make blocks of vier ('four' in German) tiles and is a long way from the mean streets of *Double Dragon* and *Kunio-Kun*.

If you grew up playing games in the Eighties, you will be fully aware of *Double Dragon*'s impact. It was one of those extraordinary games you simply could not escape. And yet despite being very much a game of its time, its status and popularity holds to this day – recently news broke that WayForward Technologies is going to be working on a brand new *Double Dragon* sequel for XBLA and PSN, which will coincide with its 25th anniversary.

Double Dragon will always remain a game synonymous with the Eighties and amusement arcades, and it is for this reason that it holds a lot of nostalgia with gamers. To close, Kishimoto shares with us his personal thoughts on why Billy and Jimmy Lee's plight has resonated with gamers for such a long time.

"*Double Dragon* is like an ambassador for a decade: the Eighties. Kung fu, street fighting, dragons, Bruce Lee, dark action movies… *Double Dragon* is a photograph of Eighties pop culture. And, of course, it was innovative and incredibly fun."

Special thanks to Double Dragon Dojo, and to Florent Gorges for their help and assistance with this article. If you are able to read French then for more information about Mr Kishimoto check out Florent's book, *The Great Names Of The Video Game Industry #4: Yoshihisa Kishimoto, Enter The Double Dragon*





» [iOS] Kishimoto can be currently found at Plophet, a studio he founded in 2010. Its latest project is *ViER* – an intriguing game for iOS.



Double Dragon V: The Shadow Falls (1994)

THE SHADOW Falls, based on the *Double Dragon* animated TV series, was clearly released to capture the popularity of the one-on-one fighting genre repopularised by *Street Fighter II*. By this point, Tradewest owned the *Double Dragon* licence.



Double Dragon (1995)

ANOTHER VERSUS fighter, but this one is based on the terrible live action movie with a helping of fighters from the games. Pleasantly, it's a decent instalment. However, being released for the Neo Geo, it had a tough time standing out from the plethora of quality brawlers on the machine.



Rage Of The Dragons (2002)

ANOTHER ONE-ON-ONE effort, *Rise Of The Dragons* has a visual style that instantly calls to mind the excellent *Garou: Mark Of The Wolves*. It was developed by Evoga, an independent developer, and, as its title hints, has only a subtle connection to the *Double Dragon* universe.



Double Dragon Advance (2003)

THIS IS a splendid enhanced port of the arcade original, developed by Million, a successor to Technos Japan. It makes a number of nice changes to the original game, including redrawn sprites, cut-scenes, no slowdown, and double the number of stages.



THE CLASSIC GAME

Thunder Force III

Hydra

This planet acts as an introduction to the game, with fairly weak enemies. It's designed around an ancient forest with heavy gun emplacements, and is guarded by the fire-breathing Gargoyle.

Ellis

The ice world of Ellis scrolls both horizontally and vertically, making it an exceptionally challenging stage. Enemies come thick and fast, and often from behind. It's guarded by the gigantic Mobile Fort.

Orn

The final planet isn't accessible until you've completed the others. It's a real ball-ache as well, consisting of three separate areas including a massive mothership called Cerebus and a final boss called ChaOs, found at the planet's core.

Gorgon

This small planet might look innocent, but it houses a deceptively tough level. Filled with lava and featuring lots of fire-based enemies, it requires a fair amount of skill to negotiate. Mechanical Twin Vulcans guard the exit.

With its stunning visuals, a rocking soundtrack and some gigantic bosses, it's little wonder that Technosoft's *Thunder Force III* is deemed to be one of the best games in the franchise. Usually cowering in the shadow of the equally magnificent *Thunder Force IV*, we've decided to once again penetrate the planet Orn and reveal why this excellent threequel is just as worthy of your time. Darran Jones is in the pilot seat and prepares to take his Fire LEO-03 Styx fighter to hell and back.

Haides

One of the toughest levels in the game. This is due to ever-changing rock formations that can often lead to dead ends. Its guardian is the massive G Lobster, who is much weaker than he actually looks.

Seiren

The world of Seiren is largely aquatic, so you spend all your time underwater. Fortunately, this has no impact on your craft, letting you concentrate on the aquatic enemies and its King Fish boss.

MEMORABLE MOMENTS



Perfectly formed

Thunder Force III constantly gets ignored in favour of its epic sequel, but it remains an excellent game in its own right, and an important part of the franchise. It's beautifully paced, for starters, and has a number of interesting gameplay mechanics, challenging enemy waves and some genuinely entertaining bosses. It's also aesthetically amazing, for what is a relatively early Mega Drive release. Meticulous sprite design, a stunning soundtrack and some gorgeously designed levels all combine to create an excellent shooter that really needs to be experienced by anyone with even a casual interest in the genre.



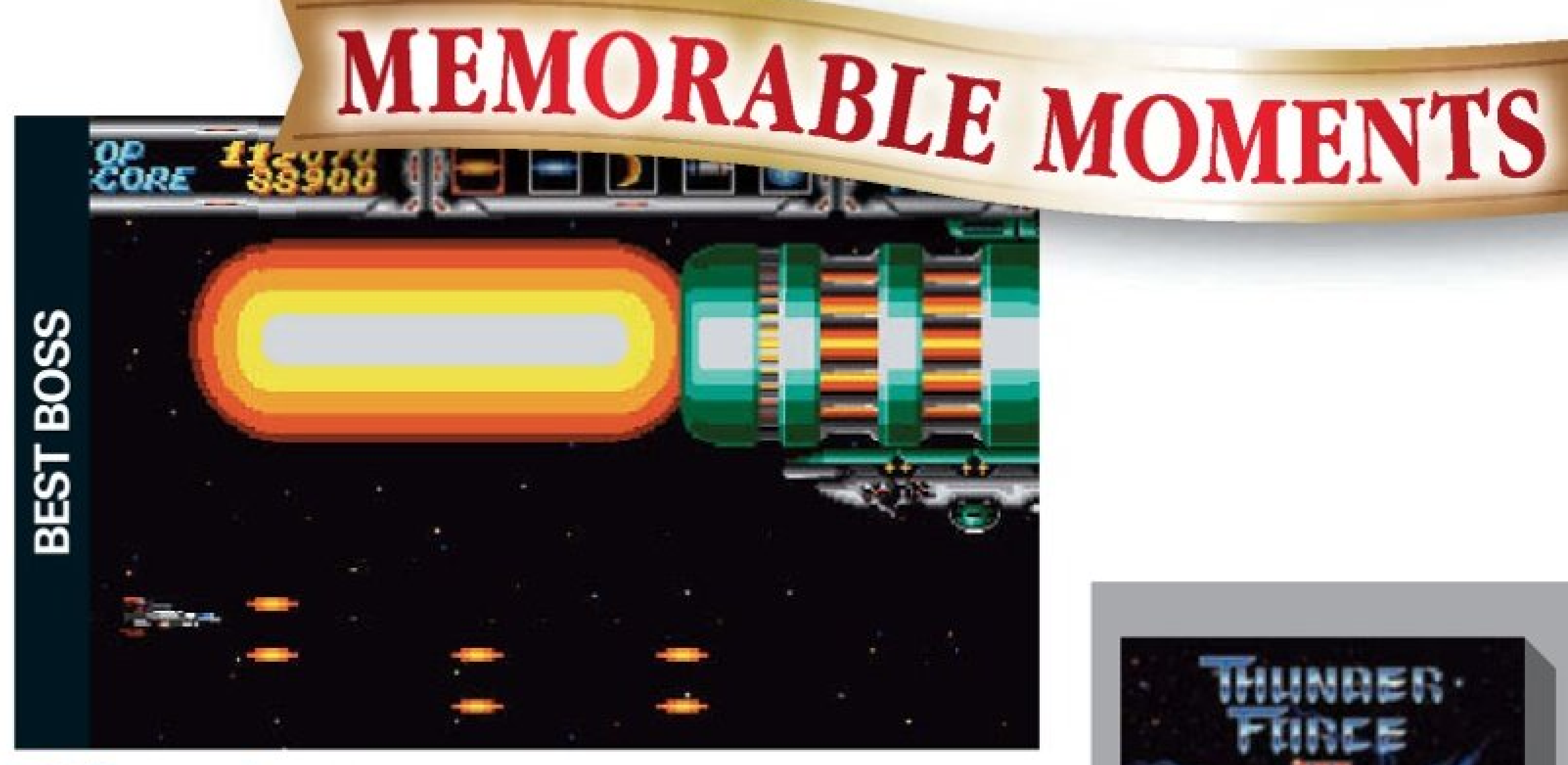
Laser-spewing hell

Thunder Force III is packed with plenty of meaty weapons, from the homing power of the Hunter to the useful utility that is the rear shot. By far the most impressive, both in terms of use and aesthetic value, is the Sever laser. Once picked up and selected, it enables your ship to spew out huge bolts of energy that effortlessly slice through most enemies. Many feel that the laser is a little too powerful due to the ease with which you can use it to take down bosses, but due to the relentless assault you're faced with, keeping it until the end of a level is often an achievement in itself.



He's on fire

The stage designs are great throughout, but none compare to the brilliance of Gorgon. It's a cleverly constructed level that's packed with a variety of enemies but also features vicious rock outcrops that need to be avoided at all costs. It also speeds up at certain points, becoming a white-knuckle thrill ride that really takes your breath away. Best of all, though, are the sensational visuals, which show an undulating background representing the intense heat of the planet. It may not look as astonishing as it did in 1990, but it's still impressive enough to make you realise just how talented Technosoft was.



Déjà vu time

The only downside to boss encounters in *Thunder Force III* is that they're a little too easy, even if they retain some excellent designs. While we've a soft spot for the huge G Lobster found on Haides and Gorgon's Twin Vulcan, our favourite boss is actually Cerebus, a massive mothership discovered after defeating the first five planets. In addition to being packed with lasers and cannons, it launches waves of enemy ships at you. You finally defeat it by flying inside it and taking out its core. Yes, it's just a rip-off of *R-Type*'s third stage, but rarely has it been aped as well as it has been here.



Stay for the credits

Technosoft is well-regarded for its superb chiptune scores, and it really pushed the boat out with *Thunder Force III*. Many of the compositions are suitably manic and fast-paced, easily re-creating the frenetic action seen on-screen, but the best tune is saved for the ending. After your flight from planet Orn and a truly bonkers plot summary, the triumphant tune shifts to become a melancholic little ditty that's perfectly themed to the scenes of your fighter docking his ship and celebrating with his friends as the credits run. It's a truly fitting, moving ending to an excellent shoot-'em-up.



Stick with the original

Thunder Force III proved so popular that Technosoft released it in arcades as *Thunder Force AC* several months after its debut. Haides and Ellis were replaced, the difficulty was upped, and the status bar and autofire option were removed. Its audio is also weaker. This version was ported to the SNES as *Thunder Spirits* and again featured several changes, including a new mothership. Its biggest issue, though, is that it is hampered by slowdown throughout, due to the SNES's slower processor. Our advice is to stick with the original, unless you fancy the stiffer challenge of the arcade version.



IN THE KNOW

- **PLATFORM:** MEGA DRIVE
- **PUBLISHER:** TECHNOSOFT
- **DEVELOPER:** IN-HOUSE
- **RELEASED:** 1990
- **GENRE:** SHOOT-'EM-UP

What the press said… ages ago

Mean Machines

"There's no denying that the [graphics] remain superb, and the sound is pretty good, but it's playability that counts, and though *Thunder Force* is good, it could have been better."



Allgame.com

"Shooter fans will love the inventive weaponry, variety of creatures, cleverly designed levels and intensity. *Thunder Force III* outdoes *Thunder Force II* and is far superior to [*Thunder Spirits*]."

What we think

You can argue that *Thunder Force IV* cranks everything up to 11, but *III* feels more pure. Yes, it's a little easy, but that just allows you to marvel at its excellent and imaginative enemies. After 22 years, it shows no sign of ageing.



RETROREVIVAL

Alien Syndrome

ENJOY A NASTY BOUT

» SEGA
» ARCADE
» 1987

The absolute best thing about *Alien Syndrome* is the bosses. On these two pages you'll see all seven of its grotesque guardians, in all their glorious un-beauty. The highlights include the first boss, a yellow alien head and his green mate sat inside something that looks like a shaved blue testicle; an eight-legged, maggot-infested thing that attacks using its eyeballs; a deeply unsettling baby-faced spider with arms for legs, which looks like those hideous Twin Victim monsters in *Silent Hill 4*; and the pièce de résistance, the final boss: a head that looks like it was modelled using decayed vegetables and has Belgian bun ears.

Playing the role of 'alien exterminator' Ricky or 'space fighter' Mary, your mission was to venture into a series of spaceships that have been invaded by nasty aliens from a nearby planet. On each stage you have a limited amount of time to rescue a quotient of human survivors, locate the exit and take down one of the monstrous creations on these pages.

To make locating survivors a little easier and help you survive the deadly alien horde, scattered around each ship were a number of terminals, which would flash up maps. You could also gain access to a multitude of different weapons, from a laser gun to a flamethrower, and a little droid companion that offered supporting fire.

With lovely visuals, imaginative enemies, nice animation and frantic gameplay, *Alien Syndrome* was an entertaining and polished sci-fi shooter, and like most of Sega's Eighties coin-ops, received a range of home conversions and an extremely late sequel.

Developed by Totally Games and released for the Wii and PSP in 2007, the new *Alien Syndrome* kept the shooter feel, but added RPG elements, 3D visuals, classes, melee attacks and a skewed overhead perspective to give its visuals a more isometric feel. Unfortunately, though, despite the embellishments, it lacked the charm and freakish designs of the original. *



2UP
TIME 99
2UP
PUSH 2PSTART
TIME 84
2UP
TIME 59
218300 TOP 100000 2UP
FREE
PUSH 2P
5
COMRADE
TIME
1UP 260300 TOP 100000 2UP
FREE
6
COMRADE

THE MAKING OF... Citadel

The arcade adventure was a popular staple of BBC Micro gaming, and Citadel sat at the pinnacle of the genre. Michael Reed uncovers its story



IN THE KNOW

- » **PUBLISHER:** SUPERIOR SOFTWARE
- » **DEVELOPER:** MICHAEL JAKOBSEN
- » **RELEASED:** 1985
- » **PLATFORM:** BBC MICRO
- » **GENRE:** ARCADE ADVENTURE

"Superior Software presents *Citadel*! *Citadel*! *Citadel*!" was the cry from the BBC Micro speaker. This 1985 game epitomises the best that arcade adventures have to offer thanks to a mixture of puzzles, non-linear exploration, a gigantic world and the arcade thrills and spills of a platformer. At the same time, the bright graphics and the thoughtful gameplay make it something of a consummate BBC Micro game.

The story of how *Citadel* was created begins not in Britain, but Denmark, the homeland of programmer Michael Jakobsen. Like a lot of coders of that era, Michael's interest in electronic gadgets began at an early age. By the time he was 13, having built various devices including a simple computer that never quite worked, he moved on to his first proper computer, a VIC-20. It was a good machine to start on, but he soon hit the limit of its measly 3.5K of memory available to programs.

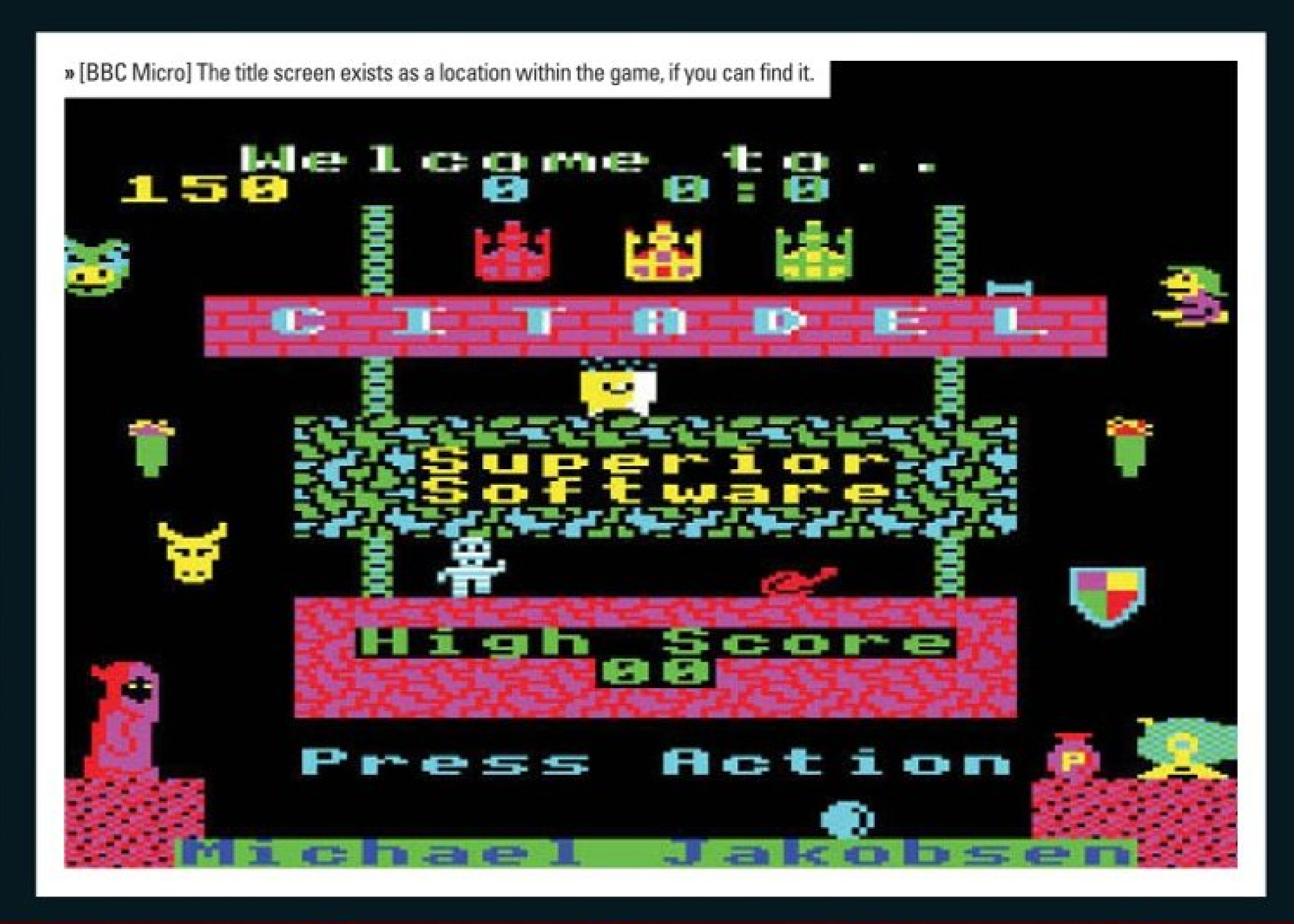
Young Michael had his eye on something better, as he tells us: "When I read about the BBC Micro in English computer magazines, it seemed like a very nice computer with 32K of RAM and good graphics modes. It also came with a good BASIC language and was designed to be very easy to program. I ordered the BBC Micro from England and immediately started writing a lot of small, fun BASIC programs. For games, speed was a problem, so I started to learn assembly language to get more speed."

Once he had the hang of assembly language, Michael began to work on his first real game, *Crypt Capers*. When the game was finished, he travelled to the UK to show it to publishers, where an outfit called Software Projects soon picked it up. The game itself wasn't a big commercial success, which Michael blames on a lack of promotion on the part of the publisher, and as a result it's fairly obscure, but it is an essential point of interest for fans of *Citadel*. The main sprite looks very similar to *Citadel*'s male character, and graphically and thematically it's not a million miles away from the later game because it involves running through colourful mazes while doing battle with Egyptian monsters.

However, although superficially similar, the games are very different in terms of both gameplay and scope. *Citadel* is an enormous game, full of puzzles, whereas *Crypt Capers* made do



» [BBC Micro] *Crypt Capers* (1984) was an earlier game by Michael Jakobsen.



» [BBC Micro] The title screen exists as a location within the game, if you can find it.



» [BBC Micro] Although it made the game into a RAM hog, the benefits of the eight-colour graphics mode are obvious.

» [BBC Micro] Until *Citadel* came along, *Castle Quest* (Micro Power, 1984) was the king of Beeb arcade adventures.

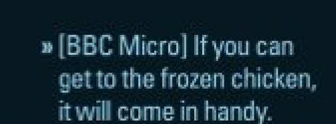
with a mere 12 screens, fairly typical of games of the time. For *Citadel*, Michael had envisioned a huge, explorable world, and yet, although a step up from his VIC-20, the BBC Micro also suffers from a relatively small amount of memory. Bear in mind that the eight-colour graphics mode uses up 20K immediately, and that's from a total of 32K. Simply storing the kind of game world that Michael had in mind was, frankly, impossible. As a result, he resorted to techniques that were typical of BBC Micro programmers.

"When I read about the BBC Micro in English computer magazines, it seemed like a very nice computer with 32K of RAM and good graphics modes"

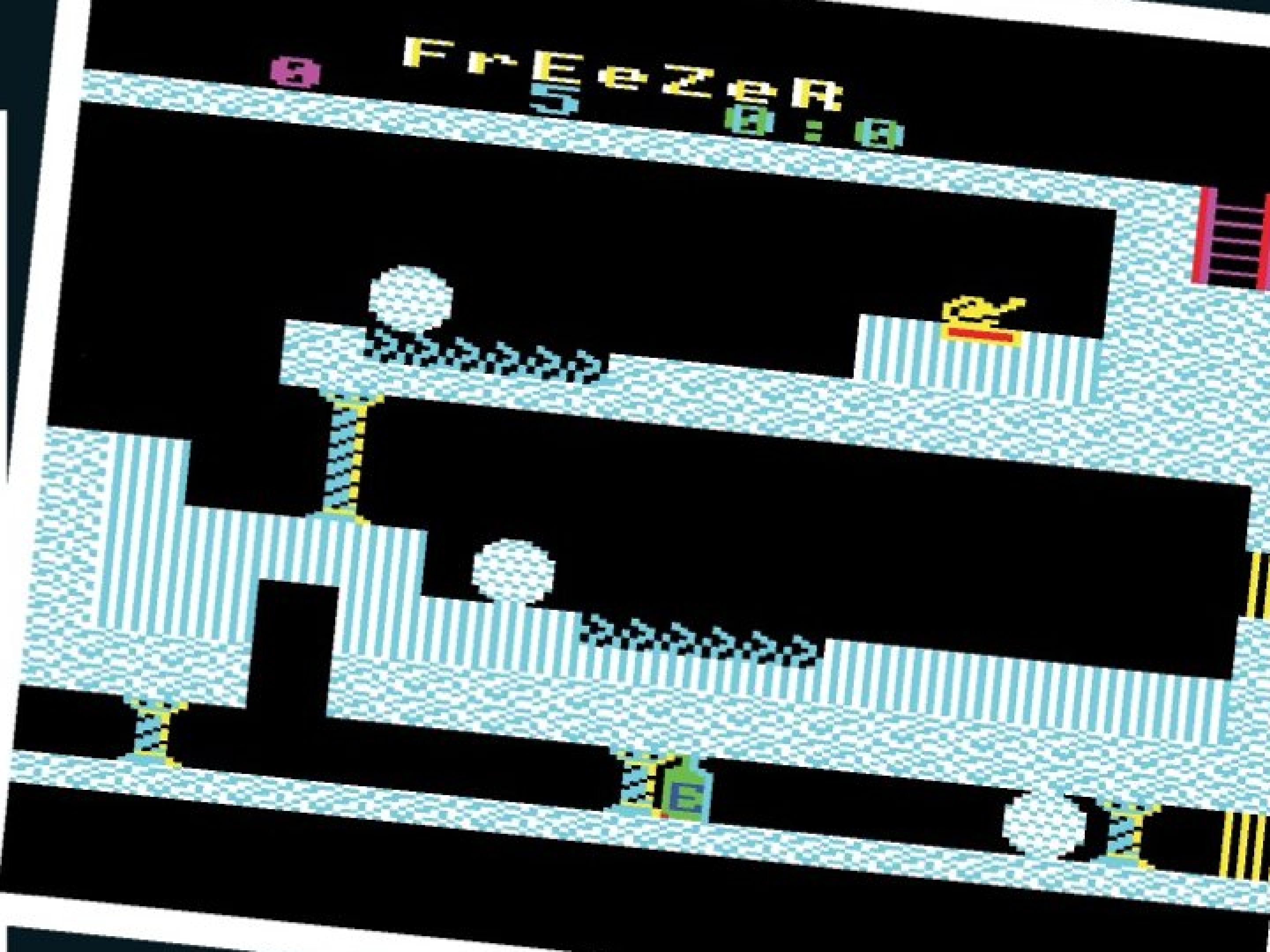
"I developed a system where each individual screen could be generated from just 8-35 bytes," he recalls. "A few bits defined a background design to fill the screen. Some bits defined geometric areas to be cut out. Some bits defined decorative elements. If I wanted a ladder or a column then I would just specify the start position with a few bits and then let the system figure out where it should end. Actually, the name of a room sometimes took more data than the rest of the design and layout.

"Now I had a system that would make it possible to design hundreds of relatively advanced rooms in just a few kilobytes. I designed a number of rooms that could represent a castle with many rooms, two towers, moving platforms, enemies, ladders, etc. Later this got expanded with underground rooms and areas outside the castle: an ocean, an island with a temple, Stonehenge, a witch's house and a complete pyramid that could be explored."

The finished game features around 240 interlinked rooms. When the player first enters a room, the screen is blanked and the Beeb's 6502 processor quickly renders the room before turning the display back on, the whole process only registering as a slight pause. The colours of the BBC Micro display are generated by storing three bits to determine whether the red, green or blue elements are switched on or off, giving a total of eight bright shades. *Citadel* makes the most of the eight-colour low-resolution (192x256) mode to ensure that every room explodes with colour and looks both memorable and distinctive. All of the sprites in *Citadel* are rendered using a technique called 'exclusive or', which mixes the sprite with the background of the screen, often used in games with a mostly black background area. The use of this technique is particularly noticeable when a player sprite passes over a


» [BBC Micro] If you can get to the frozen chicken, it will come in handy.



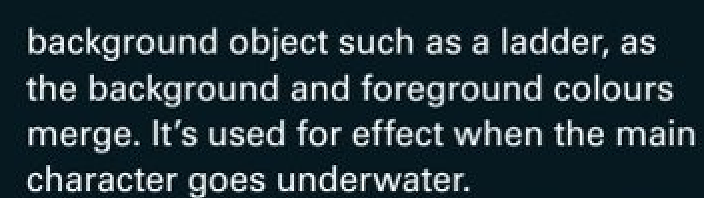












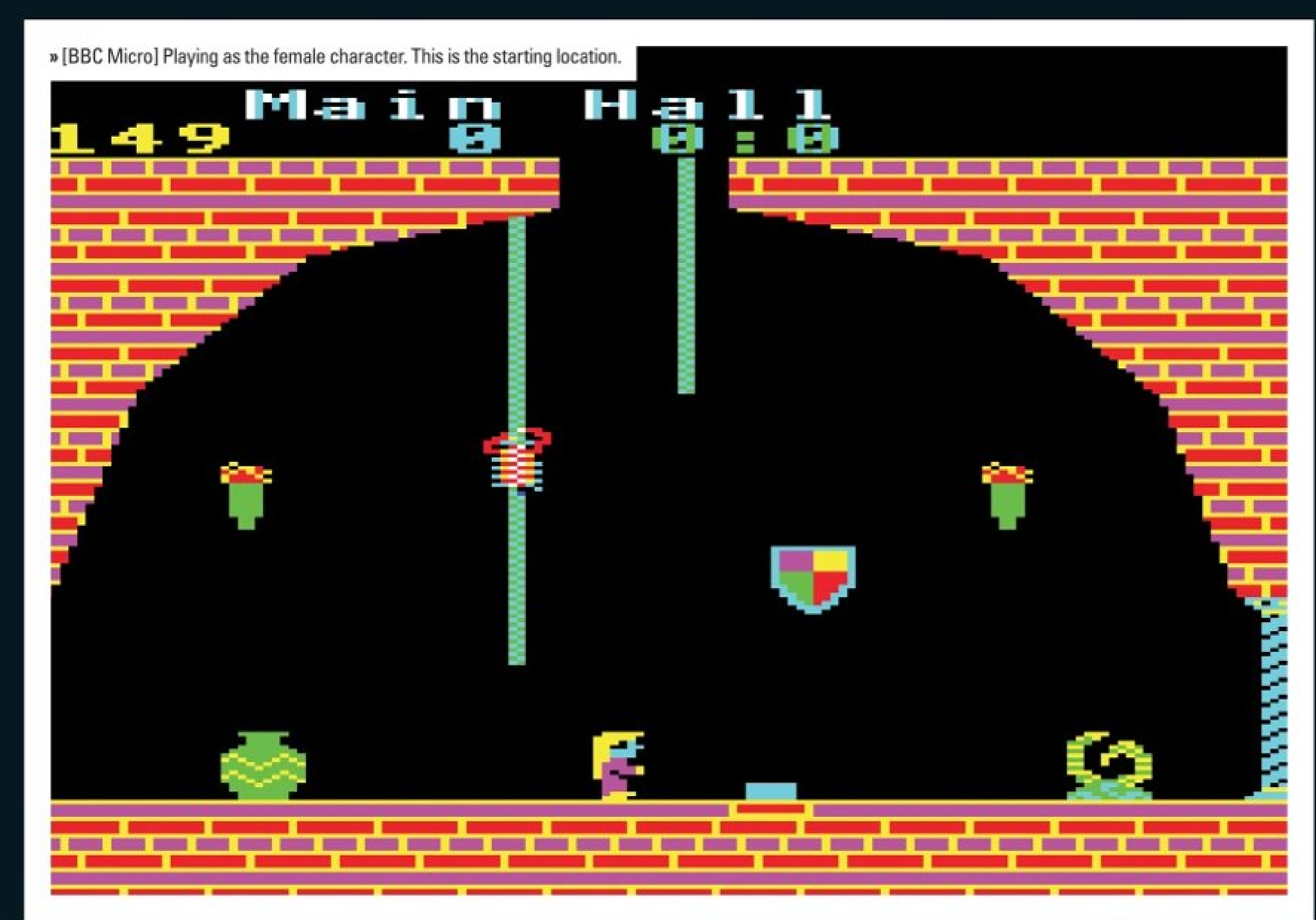
background object such as a ladder, as the background and foreground colours merge. It's used for effect when the main character goes underwater.

The gameplay itself is forgiving, as the player has a generous health system. "In most platform games everything has to be done very precisely and with perfect timing to avoid losing a life," Michael explains. "I felt that was a bit annoying, so I created an energy system where the player would lose some energy when just touching an enemy or dangerous object. However, if too much energy was lost rapidly, then the player character would be moved to an always-safe location at the spot where the room was entered. The important issue here was to make sure that players would not get frustrated by stupid small mistakes and death for little or no reason. When a player finally ran out of life energy, the player would know that it was because of a lot of small mistakes – and that you could probably do better next time."

This approach acts as an incentive for exploration and experimentation. However, making it to the end requires careful conservation of health. Similarly, the game starts in the middle of the map and encourages exploration before the trickier puzzles start to kick in. One thing that adds to the difficulty is that, typically of the era, there is no save system.

Many of the puzzles are inventory-based, and the player can carry up to two objects at once. The simplest type of object is a key, and these are all colour-coded to match various door blocks from around the map. However, there is more to *Citadel* than simply collecting keys, as there are lots of other objects scattered around the world. For example, one puzzle involves climbing into a chimney that is inaccessible due to a fire. In order to extinguish the fire, the bucket object is first filled with water. In another puzzle, a frozen chicken is first cooked and then fed to a hungry wolf. Some other arcade adventure games such as the later *Dizzy* series used a similar system. It's possible to manipulate the environment by doing things like dropping an ice crystal into the water to freeze it, firing a cannonball through a wall, or lowering the water level in an area by pulling a lever.

In total, the game took about a year to complete, and the bug-testing phase was particularly punishing, as it involved playing the entire game from start to finish each time. With his final 400 bytes of memory, Michael added the combat system and a few other features. He then made another trip to the UK to show off the nearly complete game, and Superior Software soon snapped it up. Richard Hanson and the rest of the team made a few suggestions such as the option of playing as a female character and



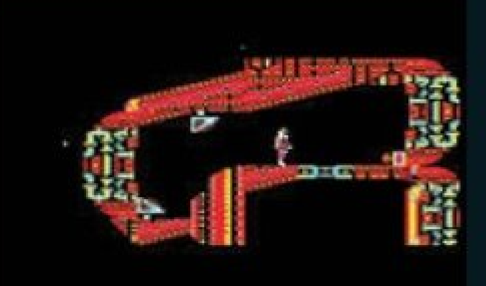
» [BBC Micro] Playing as the female character. This is the starting location.



» [BBC Micro] Fitting so many levels into such limited storage is an impressive achievement for a young programmer.

UNDER THE INFLUENCE

Five BBC games influenced by Citadel



Exile [1988, Superior Software]

PROBABLY THE most technically impressive BBC game and *Citadel*'s toughest competition for the title of best BBC Micro arcade adventure. It boasts physics and an enormous algorithmically generated cave system, and employs continuous scrolling. One of the greats.



Quest [1988, Superior Software]

TONY OAKDEN, who later went on to work on franchises such as *Driver*, *Fallout* and *BioShock*, told us this: "One game in particular, Superior Software's *Citadel*, really caught my imagination. I thought I knew how to program a similar game so I decided to give it a go."



Ricochet [1989, Superior Software]

THIS SIDE-ON arcade adventure has an unusual twist in that momentum plays a part in the way your character moves. Pressing down to compress the spherical fellow who you control before letting go takes some getting used to but certainly makes it stand out.



Star Port [1990, Superior Software]

ANOTHER TONY Oakden arcade adventure, and he's got better at them. This space-based romp has a bit more combat than most, and like the majority of Tony's Beeb games, it's extremely challenging. The computer hacking is particularly tough.



Thunderstruck [1986, ASL]

THIS WAS the first of prolific BBC programmer Peter Scott's *Thunderstruck* trilogy. It opts for the four-colour mode, but it's still a fairly attractive game. The to-ing and fro-ing and the strangely medieval look give this game a similar feel to *Citadel*.





"The important issue was to make sure that players would not get frustrated"



» [Electron] The Acorn Electron version of *Citadel*. Notice that screen RAM had to be used for storage.

some hidden objects that were tied into a prize that was offered by the publisher. The spoken introduction served as an advertisement for Speech!, Superior Software's voice synthesizer software.

The game was a huge success, and it's worth reflecting that the lack of memory coupled with an otherwise powerful machine resulted in an enormous, groundbreaking game with a rich environment. It makes you wonder if other famous BBC Micro games that were forced to rely on procedural generation techniques, such as *The Sentinel* and *Elite*, would have been as memorable if the computer had come with more memory. Having said this, Michael points out that he could have made the game much larger and faster if only the Beeb had 48K rather than the stock 32K.

The story of *Citadel* didn't end with the first game, as many other BBC programmers were enamoured with it and sought to emulate its finer qualities. Simon Storr (working as Symo) programmed the official follow-up, *Citadel 2*, a game whose 1993 release has the distinction of being possibly the final commercial Beeb game released by a major publisher. We asked Simon what it was about *Citadel* that attracted him and why he had been working on the BBC Micro at such a late stage.

"I guess I just took too long as it was a very part-time thing," he remembers. "I fell in love with the original *Citadel* and, as a teenager, I thought, 'Yeah, I want to do that.' I spent, I think, around three years on and off writing the game while I was at sixth form college and then the first year of uni. At this point the Amiga, ST and Archimedes were already getting established, but these were out of my price range at the time."

As Michael had before him, Simon was forced to make the most of the BBC's memory: "The challenge of getting as much as I could from the 8K of RAM that the Beeb had left over and getting a game that ended up with 147 screens was a blast. The levels and sprites were designed on graph paper, and I used a run-length-style compression algorithm for the graphics and level data. I managed to use every spare byte!"

Originally, the game was titled *The Fort*, and Simon had conceived it as more of an homage to *Citadel* than a direct sequel, but Richard Hanson of Superior Software wanted it to be an official follow-up. Unfortunately, by the time it was published, the BBC Micro market had dwindled, and *Citadel 2* ended up as an extra on one of the Play It Again series of compilations. Simon received £100 and a copy of the game, but points out that the whole experience gave him a useful insight into professional development.

The arcade adventure was one of the most popular genres for the BBC Micro, the combination of an arcade challenge with puzzles seeming to strike a chord with the people who bought the machine. In particular, Superior Software released a slew of other side-on arcade adventure games. *Citadel* exemplifies the best aspects of games both on the BBC Micro and in the arcade adventure genre.

» [BBC Micro] *Citadel 2* looks similar, but you can tell that it's the work of a different person.



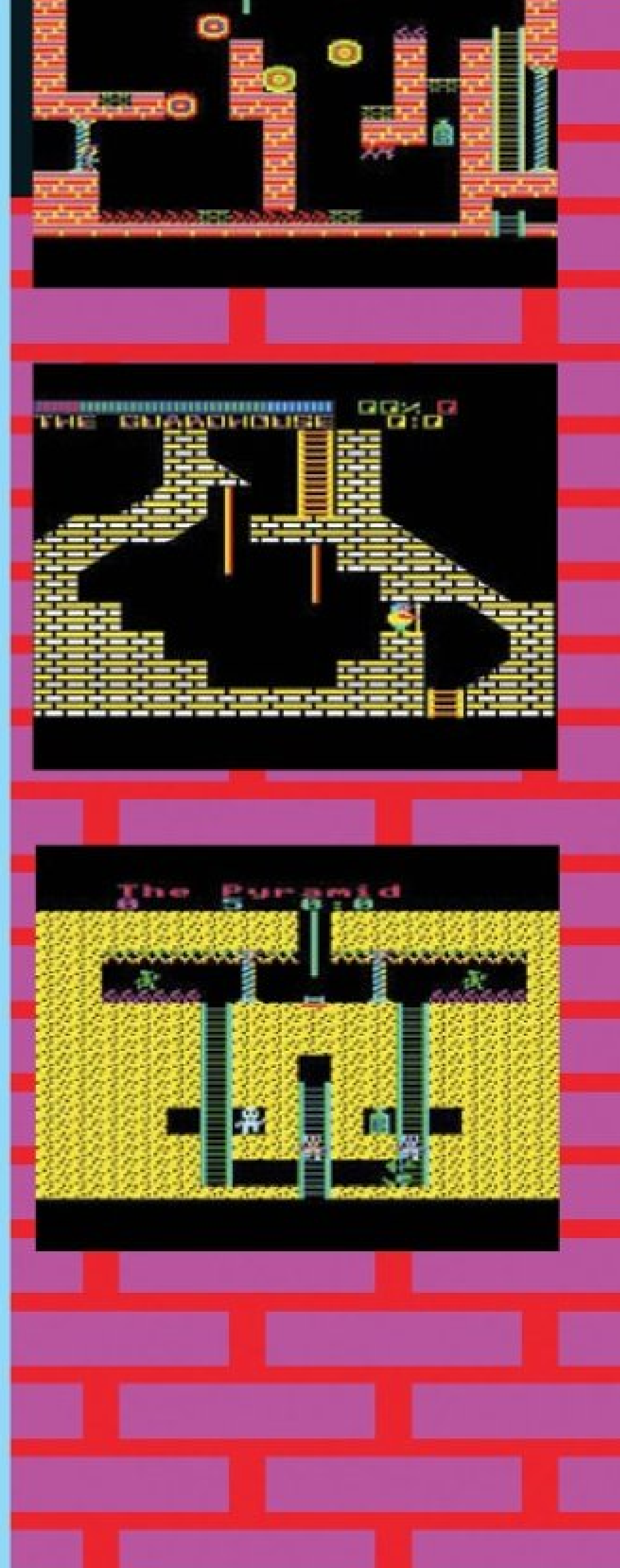
PALACE OF MAGIC

ALTHOUGH AN OFFICIAL sequel to *Citadel* was eventually released for the Beeb, many consider this earlier game, released in 1987, to be the true successor. One point in favour of that claim is that it was released while the platform was still at its height, unlike *Citadel 2*.

Palace Of Magic is a suspiciously similar game to *Citadel*, both graphically and in terms of gameplay. The back story specifies that you have been shrunk and transported to a magical palace by a satanic wizard called Caldeti. Hang on, that's an anagram of '*Citadel*'! The blurb on the back of the box also explains that there are magic objects and creatures scattered around the land that you must explore, and you have to make use of them if you are ever to restore your size and escape the palace.

The graphics are slightly more understated than *Citadel*, and fans are divided over whether this constitutes an improvement or not. The gameplay is much the same, though, consisting of collecting keys and other objects and employing them in the right location while jumping around in the style of a platform game. Other differences are that health is now represented as a bar rather than a number and the player character can no longer fire bolts of energy from its eyes. Self-defence in this game consists purely of avoidance rather than attack. The game is somewhat smaller than *Citadel*, with around 100 screens. The overall consensus of reviewers of the time is that it was a good game in its own right, but not quite as good as *Citadel*.







Future Classic

Modern games you'll still be playing in years to come



INFO

- **Featured System:** GameCube
- **Year Released:** 2003
- **Publisher:** Nintendo
- **Developer:** Retro Studios
- **Key People:** Stephen Barcia (executive producer), Mark Pacini (lead designer), Todd Keller (lead artist)

GO DEEPER

- **Completing everything unlocks a gallery, where you get to see Samus's human face in concept.**
- **Early development screens indicate it got reasonably far in third-person – you can see Samus wandering around Chozo Ruins.**





METROID PRIME

Nintendo's seemingly odd choice of developer for a 3D return to Metroid resulted in one of the most perfectly constructed games of the last generation

THE BACKGROUND

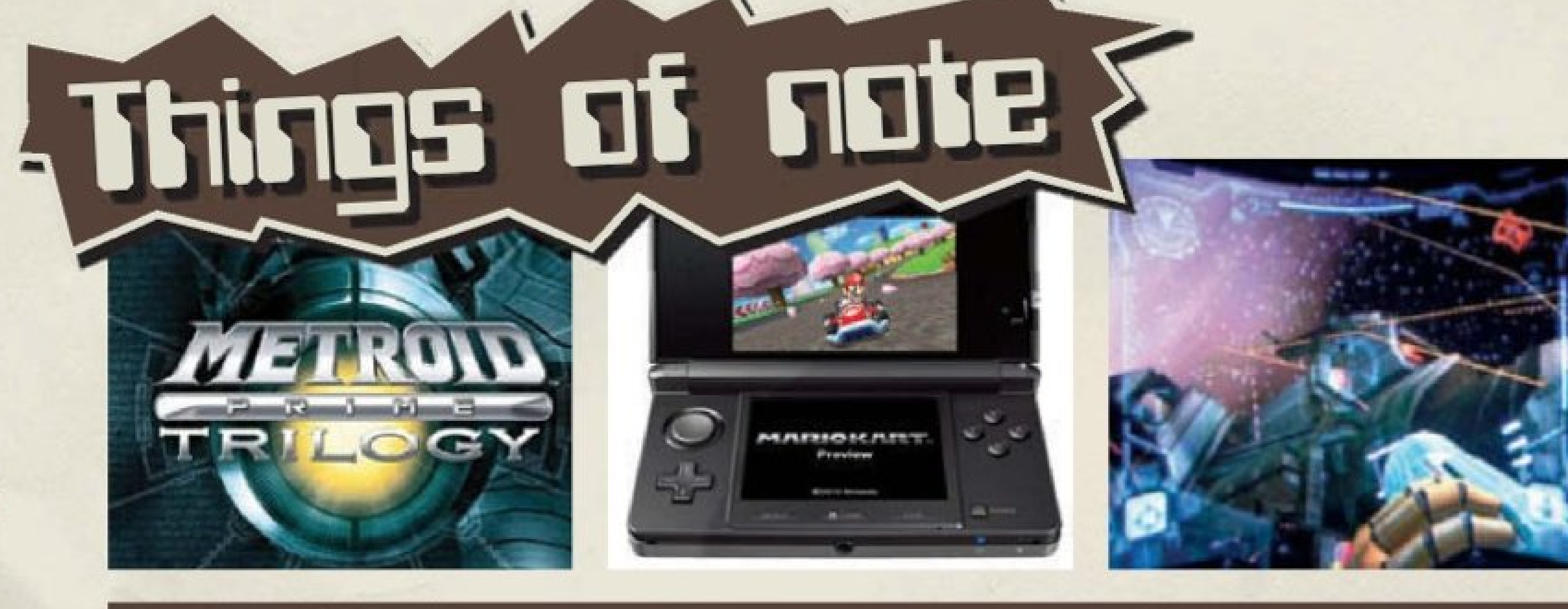
Nintendo failed to get a *Metroid* game off the ground on N64, finding neither the right ideas nor developer to take Samus into 3D. Meanwhile, Texas-based Nintendo affiliate developer Retro Studios, partly composed of former *Turok* team members from Iguana, was set up in 1998 and began work on a number of titles for the GameCube. After a visit from Shigeru Miyamoto in which Retro demonstrated the projects it had, the *Mario* creator wasn't impressed. However, based on the strength of one team's action-adventure prototype with a female lead, Retro was handed the *Metroid* licence and set to work, Miyamoto suggesting that *Prime* was switched from a third-person to a first-person viewpoint.

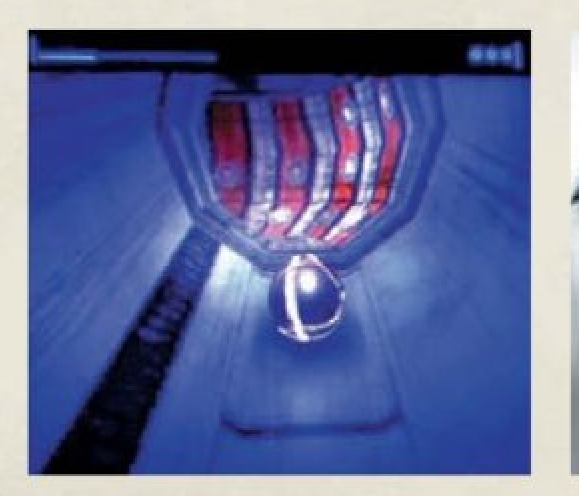
In 2002, Nintendo purchased the majority shares of Retro Studios, with founder Jeff Spangenberg ousted and management changing hands. Around this time, the other projects at Retro (a football title and promising-looking RPG *Raven Blade*, among others) were scrapped, with much of the studio staff laid off. The remaining team crunched to complete *Metroid Prime* – the first finished title to come out of this turbulent development culture – which would ultimately establish the studio's reputation.

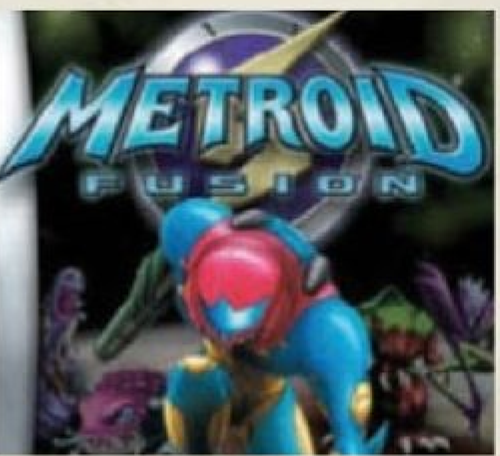
THE GAME

Metroid Prime represents the perfect transition of a videogame from 2D to 3D, essentially recreating *Super Metroid* in a 3D space. Even though the game did passionately carry over the puzzle/adventure complexity of its SNES iteration, putting Samus Aran into first-person was a fascinating new way to play, and the focus on learning the intricacies of each level from this perspective would be vital to success. It wouldn't have been enough to only put a SNES game in a modern videogame template – Retro experimented with environmental design in a way that revolutionised what *Metroid* represented in the games industry.

The gargantuan, complex world of Tallon IV can only be conquered by understanding Samus's strengths and limitations. That's always transforming from hour







Re-Primed on Wii

Prime was bundled with its two sequels into a Wii package that enabled you to play using motion controls. It's the indispensable version for series veterans.

Go West

Retro's input in major franchises for Nintendo has become significant since Prime's release, most recently working on *Donkey Kong Country Returns* and tracks for *Mario Kart 7*.

Frosty reception

Metroid Prime was approached cautiously upon the announcement that it would be a first-person game – it wasn't until hands-on demos that critics started to praise the decision.

Balls away

Third-person Morph Balling was also welcome, as it shifted the feel of *Metroid Prime* into something a little lighter – and resulted in some fantastic physics puzzles.

Samus link-up

Prime boasted what was arguably the best GameCube-GBA connectivity, when linked with *Metroid Fusion*: the *Fusion* skin for Samus, as well as the original NES game.



» [GC] *Prime*'s Levels are densely packed, cleverly designed to provoke the player's interest using the scanning visor.



» [GC] The various creatures frequently respawn, an irritating hangover from antiquated game mechanics.



NowGamer.com
Score: 9.8
"It's well thought out and the gameplay is perfectly balanced in every way."



games™
Score: 10/10
"Buy it, play it, love it and then play it all over again – there really is no other way to describe it. Just brilliant."

to hour, as the player unlocks different armour sets, visors and beams, none of which are inconsequential. Each power is designed to help in some small fashion, with that gradual process of discovering items provoking lateral thinking when you backtrack to areas and see what extra potential lies within them. It's a rewarding, open structure that again harks back to *Super Metroid*.

Every environment tells its own story, too, from the icy landscapes of Phendrana Drifts to the vaguely scary Phazon Mines. *Metroid Prime* largely takes place in enclosed spaces and labyrinthine tunnel layouts, but the stunning fidelity of the art direction makes for a unique feeling of exploration on Tallon IV, as these vastly different locations overlap with each other in a harmonious way. This is another reason why the decision to make the game in first-person paid off – there really are so few videogames that populate 3D spaces as compellingly as this.

The planet *is* the story in *Metroid Prime*. The scanning mechanic, enabling the player to examine almost every object and enemy, gives background minutiae about Tallon IV that creates a more interactive approach to the narrative. At a time when voice-acted, expositional cut-scenes were becoming prominent, making the bulk of the story something that you have to uncover was a forward-thinking decision. Graphically, it also helped that Samus's character model was the most impressive visual people had seen on the GameCube to date.

Whatever players discover about the planet, Tallon IV remains enigmatic, and you're always exploring it with a sense of trepidation. Nothing is quite as it seems, and it's that combination of eerie audio design – which nicely recalls past *Metroid* games, too – and visual imagination that really made *Metroid Prime* a critical darling.

WHY IT'S A FUTURE CLASSIC

Metroid Prime is the kind of game that we doubt today's casual-aware Nintendo would make – it's complex without pandering to the player, requiring patience before the true intelligence of its design becomes clear. *Metroid*'s move into 3D was as creatively significant as *Zelda*'s had been five years earlier, and stood as a demonstration that the mechanics laid out in the NES and SNES-era *Metroid* titles were built to last on future platforms.

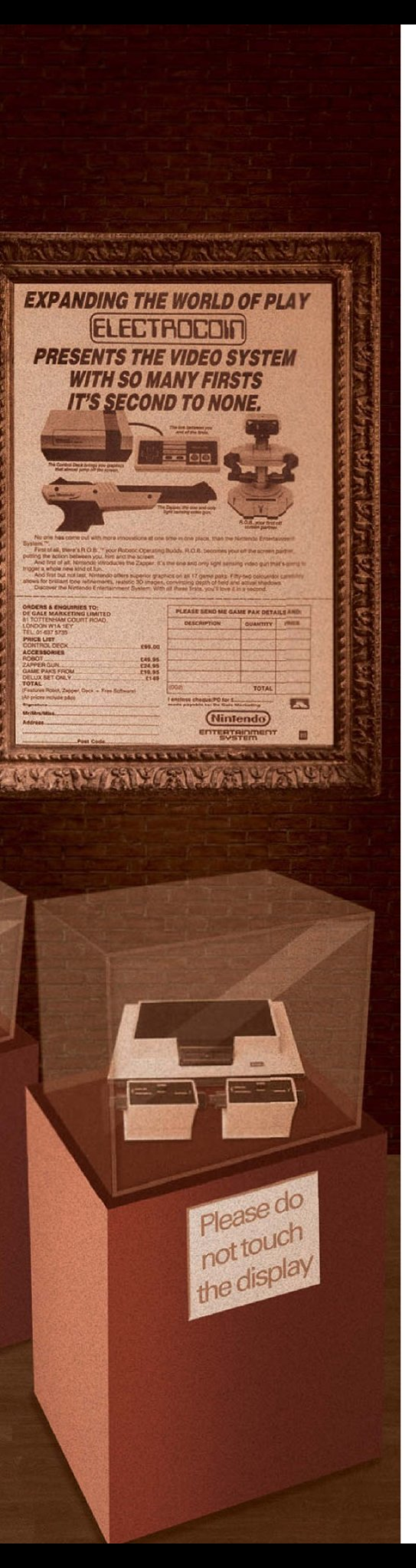
What Retro brought to the series, though, was the understanding of how the smallest details of a 3D environment should affect the player's experience, and that lending each facet of a world some kind of hidden meaning would heighten our fascination with the game.

Nintendo's touting of *Prime* as a 'first-person adventure' rather than an FPS may have smacked of corporate nonsense at the time, but the description was absolutely spot-on. Shooting is simply a means to an end; just a single mechanic along the way in figuring out how to move forward in an immense, unsettling world. *Metroid Prime* was never imitated, and it ranks alongside *Half-Life 2* in its scope of what a first-person videogame can portray.

THE SELF-PRESERVATION SOCIETY

Tim Henderson speaks to the curators and collectors who are preserving the industry's history for future generations to enjoy





The Self-Preservation Society

Gaming's history is young, and many of its legendary figures are still living. The industry may have crashed once in 1983, but in this year Tim Henderson was born, and he has attempted to carry the medium's delicate legacy with him through the ashes and into adulthood. Even if he still acts like a 12-year-old…

It wasn't all that long ago – in fact, it was earlier this very year – that Jordan Mechner, creator of *Karateka* and *Prince Of Persia*, received an unexpected piece of post as a result of his father's spring-cleaning efforts. Hidden beneath the layer of cardboard packaging was a collection of goodies that surprised Mechner himself as much as anyone else. "My jaw dropped when I saw what was inside," he noted on his personal blog. "No, I don't mean the stacks of Spanish Drosoft versions of *POP* and *Karateka*. I mean those three little plastic 3.5" disk boxes nestled among them… which appear to contain the ORIGINAL APPLE II SOURCE CODE OF *PRINCE OF PERSIA* that I've been searching for, off and on, for the past ten years."

Although this discovery has already faded into little more than a footnote amid the daily torrent of news and speculation that dominates modern gaming websites, its significance is no less noteworthy today than when it was first posted. This is not just because it is one small key to maintaining our own gaming history; *Prince Of Persia* is not a title at risk of extinction like so many other examples that came about at a similar point in their medium's history, but the thought that such a collection of artefacts from its creation may have very narrowly escaped the landfill is enough to cause a few beads of nervous sweat to be wiped from a brow.

This fate is one that has famously befallen every creative medium known to man. Early film works – sometimes even those associated with names as significant as Charlie Chaplin – have likely been lost forever, literally erased, the result of the contemporary era underestimating their long-term cultural significance and the value that such materials would grow to earn.

This very mentality has already plagued gaming. Stories on industry portal Gamasutra recount how Atari, after a change in management, was dumping filing cabinets full of its own not-insignificant history into the ground if not moved in a fire sale, their contents deemed inconsequential. One buyer even had to negotiate keeping the contents, rather than having them tipped into a ditch to help reduce the freight weight; another had to go to baffling extremes to fulfil an act of honesty in returning original art and source code for a disconcerting number of games, including the likes of *Ms Pac-Man*, *Centipede* and *Pole Position*, as well as unreleased game prototypes.

Perhaps the famous critical and commercial failure of a certain *E.T.* cash-in-that-wasn't has resulted in Atari earning itself a rather cruel association with games as trash used to plug holes in the dirt, but it's a story that has been told multiple times, with more than one origin.

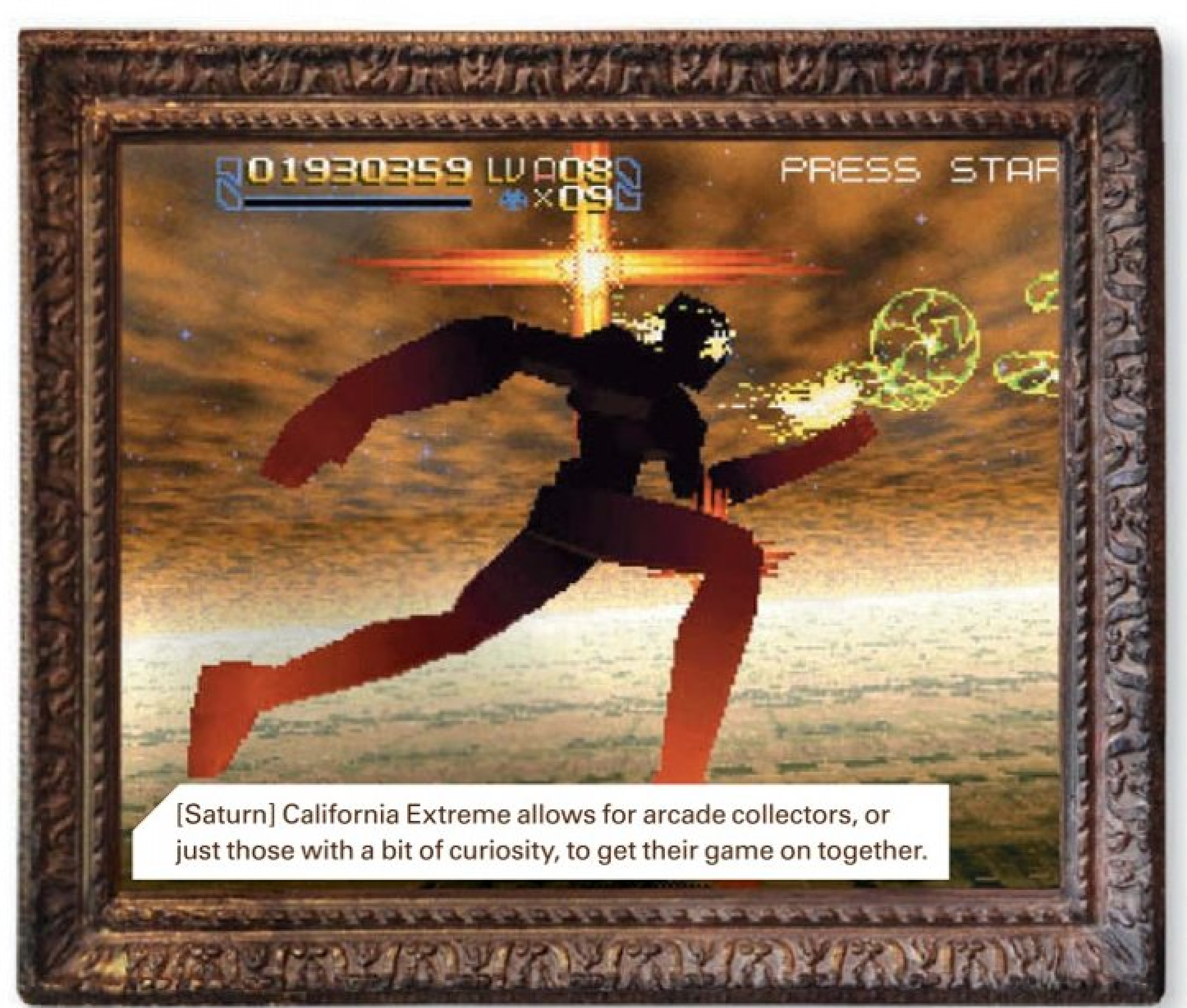
Jon-Paul Dyson, director of the International Center for the History of Electronic Games, is readily aware of the callousness with which preservation was approached in the earliest days of the gaming medium. "There have been plenty of examples of game-related materials that have been lost, from development documents and business records, to prototypes, to marketing materials, to ephemera produced by people when they play," he recalls. "I've talked to many developers who lament that they've lost a lot of the materials they had, whether because of fire, flood, or the desire of family to clear out space at home."

Those that are bemoaning losses are, understandably, not named – although their situations may not be wholly dire, as this example could have included Mechner up until recently – but Jon-Paul isn't without examples of things that went a little more right. "Our collection of materials from Westwood was saved by Lou Castle, Westwood's co-founder, when the Las Vegas studio was closed down," he tells us, naming one from a string of high-profile donors.

Located in The Strong in Rochester, New York, ICHEG has been in operation since only very recently. "The Strong, which itself opened in 1982," Jon-Paul informs us, "launched ICHEG in 2009 because we believed that videogames were having such an enormous impact on the way people play, learn, and relate that ICHEG was needed to preserve their history and record their impact on human society around the world."

ICHEG isn't alone in its quest – even the US Library of Congress is in on the act and has, in fact, been collecting games since the Eighties, with the added benefit of the US Copyright Office being a part of its organisation – but, recent as it is, The Strong's venture has already amassed a considerable collection: "ICHEG has a rapidly growing collection of more than 36,000 videogames and related artefacts," Jon-Paul says, factually. It runs the full gaming gamut, too, including everything from arcade machines to personal computers and even children's toys with integrated elements of electronic games.

It's also worth noting that, although ICHEG is hugely significant and vocal within the space, it is hardly alone. Multiple other similar ventures exist, including the likes of the UK's own Software Preservation Society and the National Videogame Archive. Plans were also



[Saturn] California Extreme allows for arcade collectors, or just those with a bit of curiosity, to get their game on together.



A gift to Jordan Mechner, delivered straight from the past. The original source code for *Prince Of Persia* is nestled away in here.

Wine and cheese

Gaming has faced an uphill struggle for cultural relevance, particularly within more high-brow circles. In a way, it's hard to blame them; it takes a good amount of digging to find the true depth and value that underpins the aggressive teen marketing focus of the likes of *Gears Of War* and *Call Of Duty*, or the happy family gimmicks recently employed by Nintendo.

As such, although perhaps not really plumbing the full depths that may one day be necessary, it was still no small deal when the Smithsonian decided, late last year, to open public polls pertaining to an exhibition centring around videogames.

Voting garnered opinions from comfortably in excess of 100,000 people, and the show opened on 16 March 2012. Those able to attend will find themselves treated to various slices of history from a good number of titles – 80, to be precise – that range between still images, video, and interviews with key personnel.

Perhaps sadly, only five titles are actually available for play, but the choices here are smart and varied, and should do a lot to elaborate upon gaming's diversity, expressive potential and artistic worth to those who visit. Those titles in question are *Pac-Man*, *Super Mario Bros*, *The Secret Of Monkey Island*, *Myst* and *Flower*.

It's a shame that *Journey* appeared too late to stand a chance of taking *Flower*'s place, as its unique online interactions represent the most troublesome aspect of game preservation: how do you conserve an experience that needs other players? Still, for anyone who may be planning a trip abroad, the exhibition is set to run until the end of September.

once in place for significant spending on the National Centre for Media Arts in Japan – a tribute to many aspects of Japanese pop culture, incorporating videogames, to have been located in Odaiba, a large artificial island in Tokyo – under the watchful eye of then Prime Minister, Taro Aso, until it was slammed by opposing political powers and accused of being nothing more than a state-run manga cafe, and a budgetary waste.

While, as seems to be common considering Japan's alarming political turnover, Aso failed to be re-elected and the NCMA plan was ultimately shelved, things are a little brighter overseas, even if spending money on games is always going to have to weather a degree of political scapegoating so long as certain ageing politicians remain in office. "We came under some criticism for a federally funded preservation grant by a politician who felt it was inappropriate for the government to be helping to preserve videogames," Jon-Paul elaborates with regard to the ICHEG project. "Given the important impact videogames are having on society, we obviously feel it is crucial to preserve them, so we're undismayed by such criticisms."

Importantly, ICHEG does keep maintenance staff on site to ensure preserved condition, but physical media nonetheless wears the noose of gradual decay. "Bit rot," Jon-Paul explains, "the tendency of digital materials to be lost because of the decay of the original material." This is doubly true if the media is intended to be interacted with. And the simple fact here is that games are, by definition, designed to be played. Furthering the point, while a film from multiple decades past may still be functional on current technology, videogames represent a far more splintered and forward-marching technological challenge; even an emulator can become obsolete. "This is why long-term migration of data from original source materials will be necessary and why ICHEG will be increasing its digital preservation efforts in the future," Jon-Paul adds.

As for those *Prince Of Persia* disks that Jordan Mechner received in the post? He's already extracted the code and posted it online in a format readable to 21st Century computers, where every person who downloads it contributes towards its preservation.

Interestingly, merely becoming abandonware isn't enough to put games in the public domain, and the copyright laws established to protect an intellectual property may sentence certain titles to legal limbo. Microsoft has reportedly looked into numerous titles of old for online re-release, only to be unable to dig though the mire and find a licence-holder from whom to obtain the rights.

It's a curious dilemma, and one that could be used to argue that legally questionable websites dealing in abandonware are actually an important part of digital preservation – large enough to warrant public attention, but less bound by the need to maintain the face of a legitimate business, such archives can do what official organisations and companies cannot: house valuable data, and do so without risk of destroying a company's name. Just so long as those in power are willing to consider the overall impact as harmless, or turn a blind eye.

While the likes of ICHEG are integral in growing increasingly complete and properly documented collections of the history of videogames, it's arguable that the most fundamental boon to the survival of gaming's distant past – especially from before many developers themselves really considered the long-term value of their work – has been the simple fact that many gamers are notorious hoarders. Jon-Paul Dyson openly points to eBay as perhaps "the best thing for videogame preservation there is", and online auctions have certainly resulted in a few clueless parents finding that all that junk from under their kid's bed was actually worth a lot more than pocket change.

Personal gaming collections have grown large and unwieldy, and, in many cases, aren't limited to software and standard-issue home computers and consoles. Ken Chaney remains a key player behind the annual California Extreme event. The show itself was borne from a desire to both nurture and expand upon the electromechanical (read: pinball) events that had been taking place, as well as allow for natural, fertile growth for a sector of arcade collectors.



[NES] Given Nintendo's family-friendly image, there's little surprise that certain software was never officially available.

"Legally questionable websites are an important part of digital preservation"

According to Ken, the event has grown – with the notable exception of the 16 September 2001 show – with each year, and it has always been a resolutely interactive affair. "From my view," the man tells us in our old-fashioned phone interview, "the games were made to be played – no game is so precious that it shouldn't be touched. If you can't play it, then why does it exist?"

While Ken does allow the possibility of some very specific exemptions, he takes a steadfast, hands-on attitude towards his own collection, stealing a moment to highlight how the various hands of the past will tell a story of the machine that is arguably as valuable as the core ROM itself. "For example, a lot of times you may buy, say, well… A lot of the early electromechanical machines didn't have any accommodation for recording high scores. So when people achieved a high score, they would carve their initials and score into the side of the cabinet. To me, that's a part of the history of the machine; that's somebody's motivation and pride, and I like that."

From a collector's perspective, this is largely a matter of opinion – as Ken points out, other collectors may prefer to "clean that up". But California Extreme is an event that serves to preserve more than just tangible things. If Warren Spector was onto anything with his own recent thoughts on preservation, then it may be in the comment that "getting people to care is the real issue". While this was said largely in the context of getting companies to make an effort themselves before it's too late, it nonetheless touches on an important part of preserving gaming's history that events such as California Extreme happen to excel at.

"When we first started," Ken recalls, "there had been an observation that there were plenty of – terrific, mind you – pinball shows. But not many shows were including videogames, and eventually we got some guys together about what this should be, and one of the crew pointed out that, 'Hey, bringing new, younger people into this hobby is vital.' And he was completely right."

While it's certainly true enough that modern gaming isn't in desperate want of young players, motivating them to care about what came before what they're already playing is a more difficult and, for that very reason, more important task. As such, we can't help but smile when Ken makes a point of sharing his fondest California Extreme occurrence: "One of my favourite recurring moments is when a father is playing a game with his kid, and the kid is just having a great time."

With maintenance happening on-site, California Extreme, in the estimation of its organisers, keeps upwards of 90 per cent of all its machines fully functional at any given time. Not a bad figure considering the age of some of the equipment. Still, such dedication and upkeep is an expensive venture, especially for an individual. Perhaps it's not surprising, then, that, much to the chagrin of the more hardcore collectors, raffle winners typically choose an all-in-one cabinet over a dedicated machine.

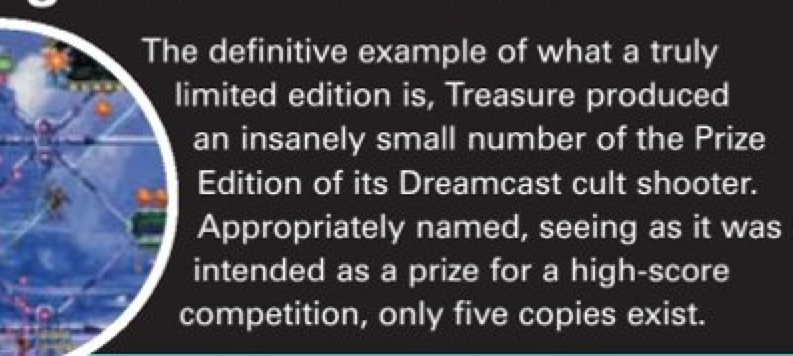
"We do put up an Ultracade – not a MAME cabinet, I want to stress; that would be in violation of copyrights – at the show, and many people are shocked that the large majority of winners select it," Ken says, highlighting a basic reality. "A lot of people who come to the show

How do we still have this?

It's difficult to single out examples of the most pristine or well-preserved games. However, stories of narrow escapes, crazy sale value or just strange circumstances have resulted in a few games standing out in our minds

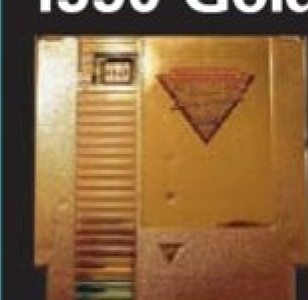


Bangai-O Prize Edition



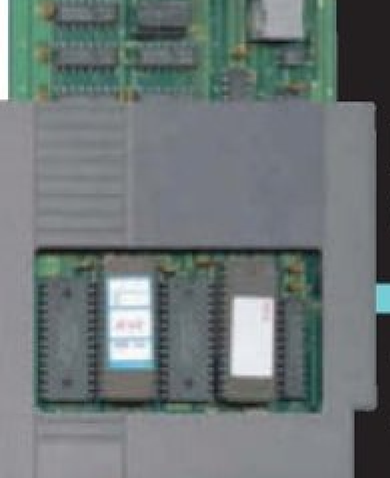
The definitive example of what a truly limited edition is, Treasure produced an insanely small number of the Prize Edition of its Dreamcast cult shooter. Appropriately named, seeing as it was intended as a prize for a high-score competition, only five copies exist.

Nintendo World Championships 1990 Gold Edition



Likely largely unknown outside of a specific group of dedicated collectors until a story in 2007, there are more of these carts out there than *Bangai-O*'s limited edition. But then, *Bangai-O* never surprised a father who lost his son in Iraq by selling on eBay for over $21,000.

Nintendo Campus Challenge

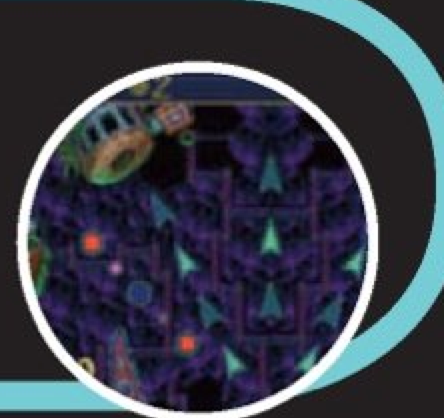


This one's bordering on extinction. At present, only one copy of the 1991 cartridge is known to be in existence, and it was found in a garage sale in 2006. Likely sold for pennies to the original collector, it's since moved for tens of thousands of dollars.

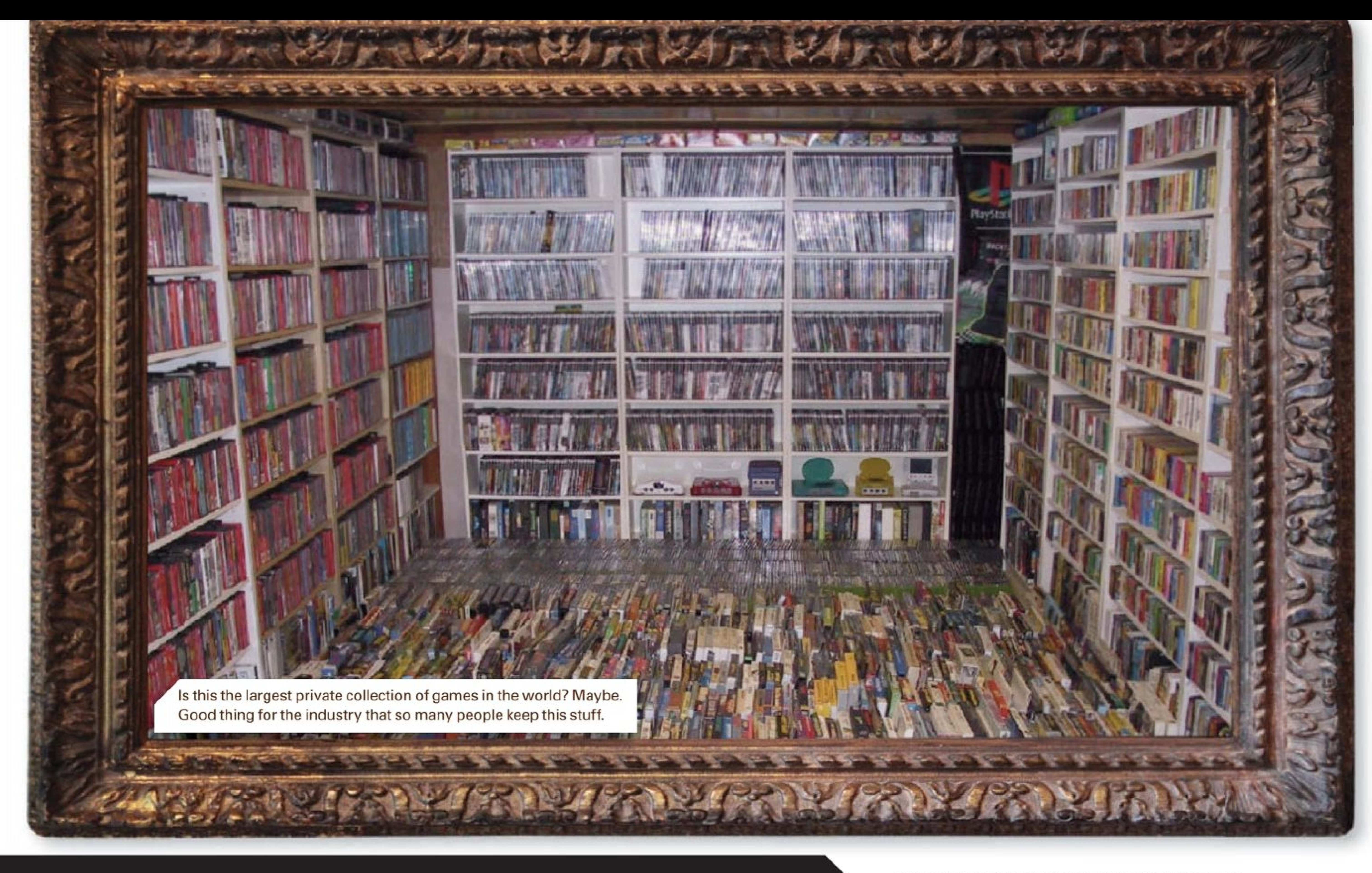
Star Wars Cockpit

Not a bad game, and a great piece of hardware. Perhaps we shouldn't be surprised that you can still find these in good shape; write *Star Wars* on just about anything and somebody's going to look after it as though it were their own child.

Sonic Spinball



Why Sega isn't allowed to have nice things: *Sonic Spinball* was set to be a part of the GBA *Sega Smash Pack*, and was causing the team some headaches. That is, until an old box in a garage brought to light a magneto-optical disc that, once deciphered, contained the original source code.


Is this the largest private collection of games in the world? Maybe. Good thing for the industry that so many people keep this stuff.

From the TZX Vault

Disappointed with the lack of mention of the ZX Spectrum, Amstrad, C64, or anything else? Don't be! The TZX Vault has been doing a fantastic job of keeping those particular libraries of games backed up and safely nestled away online. We sat down with Steven Brown, gatekeeper of 12 years, to find out more.

Retro Gamer: What is it about the ZX Spectrum, in particular, that inspired you to do your utmost to preserve its history?
Steven Brown: Nostalgia! My parents bought me a Spectrum for Christmas 1983, and I have very fond memories of playing games such as *Doomdark's Revenge* for hours on end. Since starting the site, I feel I've got a duty now to preserve as many titles as I can before they are lost forever.

RG: At present, how many games are archived on the site?
SB: There are just over 11,000 entries in the database for the ZX Spectrum. Some titles will have more than one entry – if they were released by more than one publisher or on other media such as Microdrive, for example.

I once drove to Manchester to pick up a 'copy' of *Valley Of The Kings* by Monk Soft. The author has since been in touch with World of Spectrum and said he's amazed it's preserved, as only one copy was ever sold! I've also picked up probably the only copies ever produced of *Manic Miner #2* and *Dr Jet Set Willy* by RD Foord Software from eBay.

The TZX Vault has a special page, which details information on unpublished or limited release games called the 'games that time forgot'. I'm proud of the fact that, as a team, we've been able to source and preserve *Death Pit* and *Trojan* by Durell; *Masterspy* by Albert Ball; *Gyruss*, *Loco Motion*, *Popeye*, *Q*Bert* and *Star Wars* by Amazon Systems; *Anaconda* by Reptile Industries; and *Mega Twins*.

I've spent a lot of time trying to trace copies of *The Great Giana Sisters* and *Solar Jetman*. Sadly, it looks like the only copies that did exist have long since been binned!

RG: Blank cassettes are becoming harder to find with each passing year. Is there a concern that the site alone may not, in itself, be enough to fully preserve the ZX experience?
SB: Yes, it's true that sourcing blank tapes is becoming harder. There are, however, alternatives to using cassettes. There is software on WOS for converting TZX files into WAV and MP3 format, which can then be loaded into a Spectrum via an MP3 player or smartphone, for example.

RG: Finally, does the site also host more recent community and fan-developed titles?
SB: Definitely. As well as preserving titles that were published in the Eighties and Nineties, I'm also archiving newly developed software. For companies still trading such as Cronosoft, their games are preserved but not made available for download for obvious reasons. As long as the authors are okay with their software being available, it'll be available at WOS or the Vault.

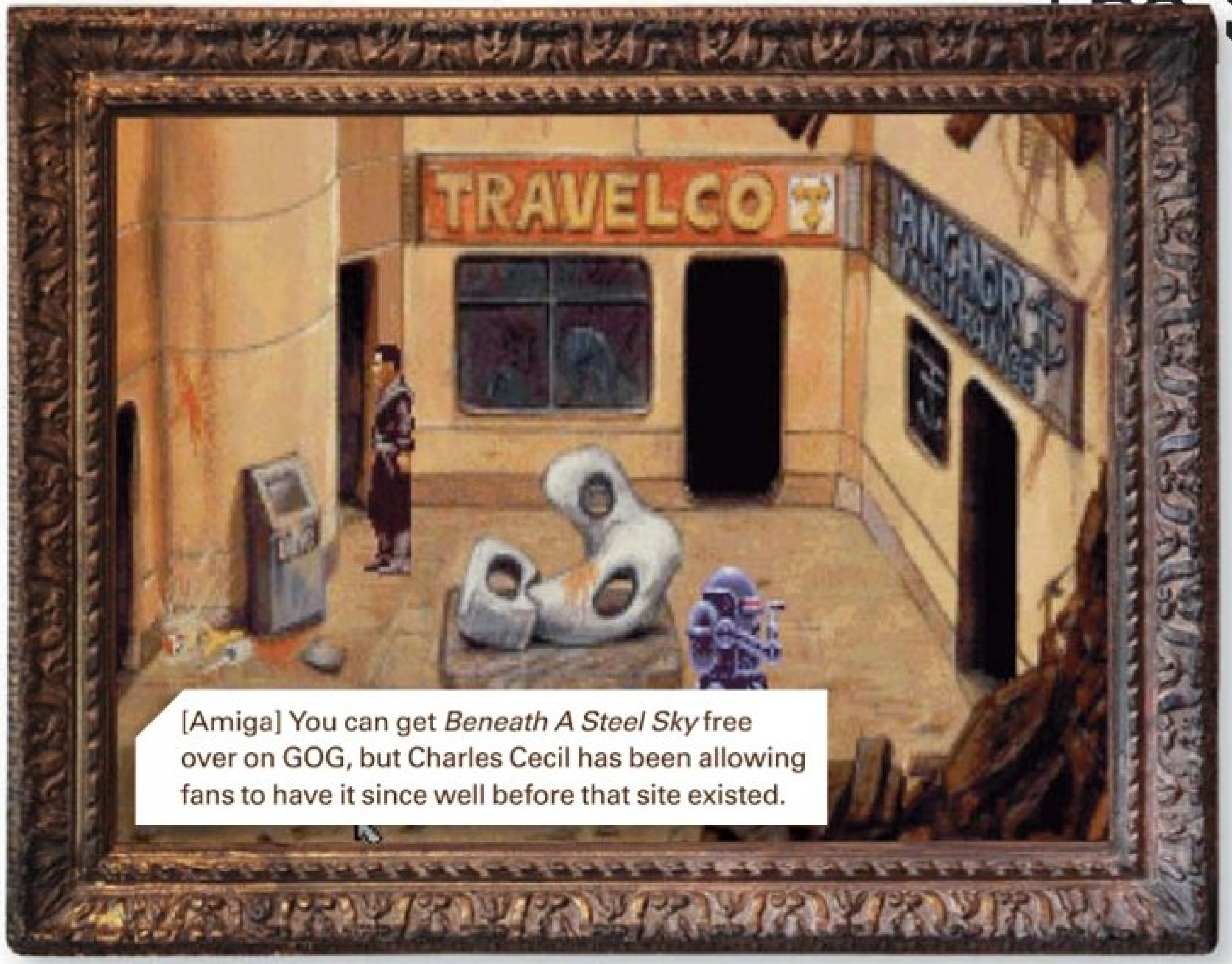
are not already collectors, and they've got to have something that they can fit in their house and enjoy. The idea of having all these games in one cabinet that won't take up too much space or make too much noise is appealing."

Matters of display and trading aside, California Extreme serves an important function in that it somewhat re-creates the sensation of being in a large arcade – even creates it anew for some younger attendees, and fosters the desire to play and learn. The magic of this sensation of time and space isn't wholly lost on the people at The Strong, especially since trying to fit such a collection into a one-bedroom apartment ceases to be a concern.

"If you visit the museum," Jon-Paul tells us, "you'll see a re-created arcade that really captures the environment of [an Eighties] arcade. For anyone who grew up playing these games, it'll be like engaging in time travel."

This is important. While ICHEG does intend to grow its digital library, playing arcade classics through emulation is nonetheless partly divorced from the full experience. "Everything, from the artwork to the cabinet to the original monitor, combines to create a unique experience," Jon-Paul beams. "Consider vector games like *Asteroids*. The luminescence of the screen and the way that persists as the ship zips through the field is something that is best experienced on the original."

This idea of not just preserving actual data and hardware, but also the moment when playing such games felt exciting and new, is something that is often overlooked when considering the maintenance of gaming's history. But this intangible certain something – like initials etched into an old cabinet – matters. **Retro Gamer** exists for a reason, but we're still pleased that ICHEG also maintains a collection of "more than 10,000



[Amiga] You can get *Beneath A Steel Sky* free over on GOG, but Charles Cecil has been allowing fans to have it since well before that site existed.


[Dreamcast] Announced early on, but cancelled before the Western release of the Dreamcast, *Geist Force* was presumed lost forever until someone dug up a work-in-progress version.

"The artwork, cabinet and original monitor combine to create a unique experience"



[Mega Drive] After an absolutely atrocious port to the GBA, Sega claimed to have lost the original source code for *Sonic The Hedgehog*. This is why facepalming was invented.

videogame and computer magazines" to really assist in creating a certain mindspace.

This idea has seldom been executed as strongly as it was on the Gamers With Jobs website back at the end of 2010, when, rather than writing retrospectively, the site took on the mentality that a flux in time had occurred and everyone was back in 1998 again.

"That year represented a time when I had just started writing about games on the internet," Shawn Andrich, the site's self-titled Grand Poobah, tells us. "Playing it straight and writing like we were back in that era was as much about reliving our old writing days as it was a creative writing challenge."

Fortunately for the era in question, as Shawn points out, creating such an illusion in the online space, even unintentionally – "Some people seriously thought something had happened to the site and old content was suddenly being reposted" – was entirely possible by sheer dint of there having actually been gaming sites in existence back then, posting excited articles about the release of *Half-Life* and reports of the Japanese Dreamcast launch.

However, it was the games – and the experience of playing them – that really mattered, and Shawn points out that he made sure that "for *Half-Life*, I played the original, vanilla version" rather than opting for the Source update in the '98 week lead-up. "What's funny about playing old stuff is that once you get about an hour in, a good game will just melt into your brain and suddenly the graphics don't matter any more."

It started a trend that the whole community got behind, creating a sense of role-playing within an era that even the magazine currently nestled in your hands would blush at, and giving numerous classics a chance to, in a sense, live again, as if for the first time.

"After '98 week, we ended up booking weekly games where we would bust out old favourites like *Jedi Knight*, *Rainbow Six* and the original *Tribes*," Shawn concludes. It's certainly a romantic notion – that these games aren't being mummified, but actively kept alive and active. However, echoing the realities of limited physical space and the need for the likes of ICHEG, the illusion could only be pushed so far: "Do people even have CRTs any more?"

The answer to that question is likely a case of, 'Yes, but only so many.' This is understandable, and it's also why organised bodies are necessary to collect and conserve these artefacts of gaming; sure, Good Old Games can make *Gabriel Knight* work on your PC again, but it can't change your monitor's native display resolution, although the ambition is certainly present – last year's *PixelJunk SideScroller* did its utmost to create the illusion that all those LCD sets it would inevitably be played on were actually somewhat pot-bellied, while Capcom came before this with bursts of 8-bit *Mega Man* love that went so far as to include optional screen-flickering as a feature.

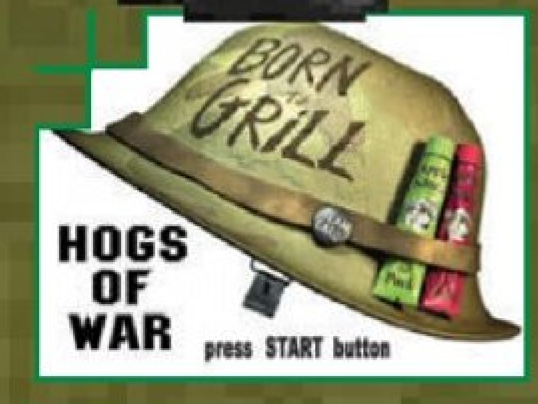
This is all well and good, but there's a reason why such design decisions get made, and those reasons lay in gaming's relatively young, although still storied, history. One that has the luxury of avoiding mistakes made in other media in their early days, just so long as a spring clean doesn't dump too many valuables masquerading as junk in the bin.

As such, we will allow Jon-Paul to conclude this write-up with an understandable plea: "We need institutions like ICHEG to preserve these materials for the long term. And so, if there are any individuals out there who are looking to downsize their collections, please contact us!"

THE MAKING OF

HOGS OF WAR

Released in 2000 for the PlayStation and PC, Hogs Of War is a hilarious, charming and mildly insane turn-based strategy game in which warring armies of pigs blow each other to smithereens in the pursuit of swill. Lead programmer Jacob Habgood explains to Phil Locke the method behind the madness gas



IN THE KNOW

» **PUBLISHER:** INFOGRAMES
» **DEVELOPER:** INFOGRAMES SHEFFIELD
» **RELEASED:** 2000
» **PLATFORM:** PLAYSTATION, PC
» **GENRE:** STRATEGY

With just ten seconds left on the turn clock, your gamble pays off. Successfully parachuting behind enemy lines, you grab the Super TNT and immediately set about making your friend's life a brief misery. FOOM! "The green team strides the battlefield like a COL-OS-USS!"

There's no point trying to hide it – *Hogs Of War* is very similar to *Worms*. Both games draw from the same well, in that they're best played with friends, and remembered not just as games but as exercises in schadenfreude. However, *Hogs* started out as something different.

"The idea for *Hogs Of War* came from Ian Stewart," explains Jacob Habgood, lead programmer on *Hogs Of War*, referring to the founder and managing director of Gremlin Interactive, the publisher and developer where work on *Hogs* began. "Gremlin, at that stage, was both a publisher and a developer. So, unlike today where I suppose there tends to be a lot of independence between the two, a lot of the old publishing houses had the development side and the publishing side both in one building, owned by one person – that person, in this case, being Ian Stewart.

"He had been to see *Babe* and felt that we should be making a game based on pigs. At the time, I think the top two games in the chart were *Command & Conquer* and *Worms*. As much as everybody compares *Hogs* to *Worms*, it was actually *Command & Conquer* that was the original brief – a kind of *Command & Conquer* with pigs."

Hogs Of War veterans will be surprised to learn that Chris Noonan's cinematic cute-fest was an influence on the game, and may well now wonder whether *Babe* would have been improved with mortars. The *Command & Conquer* influence also isn't immediately apparent to the player – without being a shameless copy, *Hogs Of War* certainly seems to wear the influence of *Worms* on its sleeve, both in its turn-based gameplay and in its fantastically British sense of humour.

Jacob agrees: "That's definitely what it became, but it started off being a concept based around a turn-based strategy game with pigs." The single-player campaign was actually considered to be more of a priority during a lot of the development period, but the team eventually came to realise what a strong multiplayer title they had on their hands.

Jacob explains it simply: "We thought about single-player more. But, as we got through development, we started to realise that it was the multiplayer that people were getting very excited about. So it probably was that more effort was invested in the single-player, but a lot of people prefer the multiplayer game."

Hogs Of War isn't by any means an entirely original game, but what it lacks in originality it more than makes up in sheer fun. It's a pants-wavingly mad game, in which you, while being alternately praised and berated by Rik Mayall, control a squad of armed pigs and take them to war in a quest for a thinly veiled metaphor – namely, swill. Alternatively, you can forgo the single-player campaign and receive praise and abuse from Mayall for failing to shoot friends properly.

Surprisingly for such a silly, fun game, the development period was lengthy, with problems involving who would actually end up publishing the game. "It was started under Gremlin interactive," Jacob begins, "then Gremlin floated on the stock exchange. Things didn't go so well… Gremlin ended up being bought by Infogrames, the French company." Along with near cancellations of the game – Jacob remembers "two separate times where we were fighting for the life of the project to continue" – the uncertainty started to draw out the development further and further.

"It was a bit complicated. You were constantly having to re-justify the game's existence to a new set of management. The development time for *Hogs Of War* was probably about three years from



» [PSone] With the aid of a jetpack, pigs can actually fly.

» [PSone] Although pigs flying isn't out of the question in this game, swimming sadly is.



» [PSone] It's always good to reach out and touch one of your old friends.



» [PSone] *Hogs Of War* shared *Worms'* proclivity for bizarre weapons.

start to finish, which is an insane amount of time. That was partly due to the fact that there were these periods where everything's on hold, when the company gets taken over, things don't move forward, nobody knows what's gonna continue, what's not gonna continue."

However, Jacob doesn't feel that this hindered the game's development much. "Having gone through several periods of this kind of thing, it did enable us to spend that time improving the game. We were

A very creative guy. But towards the end of the project, where it kind of took on a slightly different direction, it was a guy called Phil Wilson who took over as the 'everyday' designer on it, as the guy who actually tweaked all of the levels, and designed the finished version of the levels. He was a very creative guy, very passionate about his discipline. He would go home every night and play the build that we'd created for him, and come back the next morning with a list of changes

> Hogs Of War seems to wear the influence of Worms on its sleeve, both in its turn-based gameplay and in its sense of humour

having to constantly re-present the game, and rethink the ideas behind the game, the focus and so on. While it represented a challenge, it probably also benefited the final product because it had been through so much, so many iterations.

"We were lucky that, towards the end, there was a guy who worked for Infogrames called Sean Millard, who is now the creative director of Sumo. He came down and had a look at *Hogs* and thought it was the best game he'd played in ages."

Jacob, who coded the engine for the PlayStation, is quick to praise his colleagues on *Hogs Of War*. "The designer behind the game was a guy called Ade Carless, the guy that invented *Zool* and various other games.

that we needed to make. He went on to work at Realtime Worlds on *Crackdown*."

Part of the appeal of *Hogs Of War* is that it's so charming. There's no hard-nosed realism, nor anything even resembling it. This is a game in which a spy can steal an opposing player's trotter, rendering him armless. Part of this charm is in its anachronistic nature – in a world where universality is everything, it's refreshing to play a game that's so unashamedly local.

"Now," says Jacob, "the big companies, they want global games, built to global audiences. That's why there was never a sequel to *Hogs*. There were several rumours – we started one, and worked on the game for about six months. *Hogs* sold very well, but only in terms of a European phenomenon. It didn't really sell in the US at all. For publishers at the time, that wasn't a viable approach; they didn't feel that was what they wanted. It was too British, too European and too quirky, which I think is a shame."

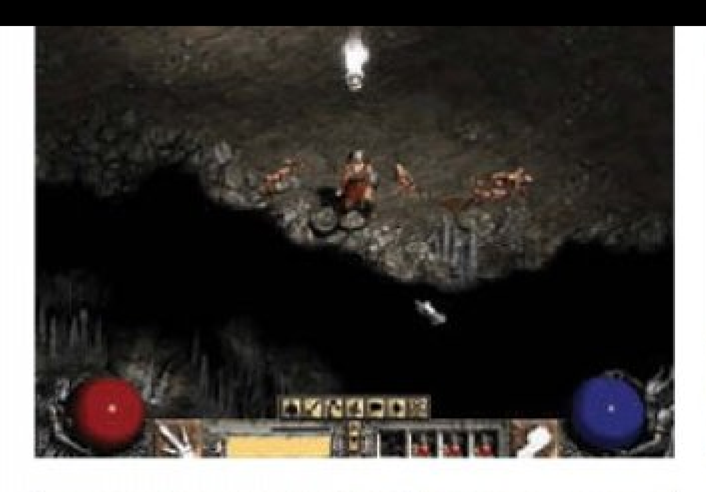
There's a real sense that the development team were having fun when the game was being made. "I'd definitely say that one of the things that was so great about working on *Hogs* is that at that stage team sizes were manageable enough that everybody could have a say," Jacob explains, "so more than any of the other projects I've ever worked on, it was a kind of team collaboration, and everybody could have a chance to put their own creative input into the finished game."

"SOUNDS FUNNY"

THERE'S AN EXTREMELY home-grown and localised sense of humour to *Hogs Of War*, with a lot of the humour relying on well-known national stereotypes. However, *Hogs* is more silly than jingoistic.

"In every different territory that it went out in, we had a different personality doing the voices for it," remembers Jacob. "So, in France, they had French comedians that were voicing it; Germany had people that were known in Germany, and so on and so forth.

"Although it had this very British feel, and these European stereotypes – perhaps not particularly politically correct ones – if you played the French version it had the same about the English. In every European territory it had their stereotypes of how they saw every other European country, so it was very balanced. It was extremely popular in Germany."




















Diablo



In 1997, Blizzard plunged gamers into Hell for the first time with Diablo, an action RPG that would shape the genre for years to come. The franchise has established itself as the leading name in hack-and-slash loot-hunting action

THE BACKGROUND

Chances are you haven't heard of Silicon & Synapse, or rather you don't think you have. Indeed, the American developer, founded in 1991, wasn't exactly quick to make a name for itself – a string of C-list ports hardly set the world on fire, though the firm would later produce two original and fondly remembered titles in *The Lost Vikings* and *Rock N' Roll Racing*. But a change of name in 1994 gave the world its first glimpse of Blizzard Entertainment, today one of the most well-known and lucrative names in gaming. The release of *Warcraft: Orcs & Humans* that same year put Blizzard on the map in a way that none of Silicon & Synapse's releases could ever manage, and things snowballed from there.

The firm's first real sniff of commercial and critical success, *Warcraft* developed the real-time strategy gameplay seen in the likes of Westwood's exemplary *Dune II* while injecting a little more character and creativity into proceedings. Westwood would do much the same the following year with *Command & Conquer*, though it was Blizzard that was first past the post here, establishing some of the staples of a genre pivotal to both historical and modern PC gaming with a well-designed and original RTS. But while Blizzard's main team worked on growing the *Warcraft* brand with sequels and expansions to capitalise on the game's popularity and success, an unlikely secondary team was hard at work on one of the most important PC games of all time.

By 1996, Condor Games had released just three games – two American football titles and a *Justice League* tie-in. But despite this

uninspiring back catalogue, Blizzard had clearly spotted a level of potential in the studio that nobody else had, and the company quickly snapped up the small Californian studio. Renamed Blizzard North, the team surprised the world with a hugely original action RPG that nobody saw coming, a game of class and quality that created and defined a genre in one fell swoop. That game was, of course, *Diablo*, a release that would do for the action RPG what *Warcraft* did for the RTS and would forever ensure that while nobody ever really heard of Silicon & Synapse or Condor Games, everybody would come to know Blizzard's name.

THE GAMES

Diablo (1996)



Originally pitched as a turn-based evolution of roguelikes such as *Moria*, Blizzard's seminal ARPG changed massively between initial concept and finished article. Set in a dark fantasy world amid a war between Heaven and Hell, *Diablo* was the game that first proved that Blizzard had a level of imagination on a par with the programming ability already demonstrated with *Warcraft*.

And while the game itself evolved some way from its initial roguelike design, some aspects still carry the hallmarks of *Rogue* and its simplistic RPG imitators. *Diablo* offers a single 16-floor dungeon that consists of randomly generated levels – a setup common in roguelikes – and the simplicity of the combat is yet another sign of the game wearing its inspirations proudly. Furthermore, enhanced items must be appraised before their special abilities can be learned and made use of, only here such items cannot be equipped at all before being appraised, whereas most roguelikes tend to let you try on anything you like, often slapping you with curses and undesirable effects for your curiosity.

But where roguelikes generally hide behind simple presentation to facilitate a greater level of freedom, Blizzard was able to blend a gothic art style with a similar isometric viewpoint to those seen in popular games like *X-COM* to deliver an experience like no other. Every trip beneath the surface proved unique, hallways branching and rooms appearing differently on each play, with even the monsters that lurk within and the quests on offer changing dynamically. It was incredibly rare to see a role-playing game offer such potential for multiple plays and repeat visits to areas, which is just one of the reasons why players were so quick to take to *Diablo*.

The trio of character classes is another; three role-playing staples, each offering a totally different experience. It might not sound like much – and on paper, it isn't – but coupled with *Diablo*'s inspired mechanics and randomised elements, it made for a game worth playing three times or more. Combining the personal levelling process of a traditional RPG with a torrent of increasingly impressive gear courtesy of the frequent loot drops, each class could be easily tailored to either play to strengths or cover weaknesses, and this is something that really came into its own once you started to play around with the game's multiplayer component.

EXPERT OPINIONS

Jay Wilson, lead designer on Diablo III, discusses how the franchise has evolved since its 1997 debut

Retro Gamer: Was the series' heritage a deciding factor in retaining an isometric viewpoint for the new game?
Jay Wilson: That was one of the reasons. You could make a first- or third-person *Diablo* game no problem – the universe would support it and there are a lot of advantages to a game like that. When we looked at the industry, we saw plenty of games like that, but we didn't see any games like *Diablo II*. So we just felt like it was more interesting to stick with the isometric view and to stick with that kind of gameplay – it just isn't explored enough. At Blizzard, we're all about gameplay. All of our choices are based on what will make a game play better, what's going to make for more interesting and different gameplay to what we see somewhere else. It's funny that to make a second sequel to a game, we're actually exploring gameplay that an industry as a whole is ignoring. It's not often you can say that you're making a second sequel but still being really innovative. But we do feel that, compared to the rest of the industry, it's a more interesting choice than a lot of people are making.

RG: How much cross-pollination is there among Blizzard's titles?
JW: I think a lot of the time, people forget all the things that *World Of Warcraft* took from *Diablo II*. The talent tree from *WOW* is an adaptation of the *Diablo II* one. The quest icons that appear over people's heads, those are from *Diablo II*. Tons of skills are cross-pollinated between all the Blizzard titles. Any time you have something as popular as *WOW*, you're going to have a backlash from people who just don't care for that style of game. I think the core worry that people have is not whether there's a skill or a particular piece of art that looks like *WOW* – they're worried that the game that they love is going to turn into something new. And that, I don't think they should be worried about. We're definitely making another *Diablo*. Certainly we're influenced by games like *WOW*, but we try to be influenced in such a way that we'll take something because it's better, not because it's different or because we think that suddenly it'll make the game more successful because *WOW* is so successful. *Diablo II* was the bestselling Blizzard game of all time until very recently, so it did just fine. We're certainly not worried that if we don't stick to the *Diablo* formula we'll suddenly not have a success.

RG: Do you expect a backlash from die-hard fans every time you announce a new feature?
JW: It's kind of a no-win situation. We look at the wizard and, to me, she's quite different to the sorceress because there are all kinds of skills on her that we could never put on the sorceress. The sorceress is an elementalist, so if it's not lightning, fire or ice, it doesn't really work on her. But the wizard is more a kind of straight, old-school, pen-and-paper RPG mage – she can conjure physical objects out of thin air, she can stop time, she can create illusions. None of these things really fit with the [sorceress] so, for us, the two are really different. I think maybe people were hoping for something completely out of left field, but I think if we were to do that, we'd disappoint all the people that want a wizard/mage/sorceress. So what we tried to do in those cases was come up with different takes on those classes.



» [PC] *Diablo II* remains phenomenally popular, only leaving the US PC top ten as late as 2010.



“While nobody ever really heard of Silicon & Synapse or Condor Games, everybody would come to know Blizzard’s name”



Also appeared on…



THE ORIGINAL *DIABLO* was ported to the PlayStation a year after the PC release. A generally solid conversion, the PSone edition switched from a mouse interface to offer direct control over the character with a controller, the first and only time in the series that this has been the case. While it lacked the online multiplayer component, this version did get a local multiplayer option to make up for it, as well as several other design tweaks to tailor the game to a console audience. Like so many complex games, though, *Diablo* would really take a bite out of the console's available storage space – saved games would occupy ten of an official Memory Card's 15 blocks.

Battle.net functionality was one of the final things to be added to *Diablo* before release, a last-minute brainwave that would allow players to meet in lobbies, party up and head out on adventures together. Frail sorcerers needn't fear getting swarmed with a mighty warrior or two on the front lines sucking up all the pain, and with support for up to four players either on a local network or over the internet, this proved to be one of *Diablo*'s most appealing features. It also allowed the game to set itself apart from most similar examples of co-operative questing by allowing players to damage one another – it might not seem wise to burn health potions fighting among yourselves, but common sense gave way to pure pride and entertainment, fellow warriors turning on one another in the heat of battle to settle petty disputes, with flashy displays of violence also a perfect way to show off your rarest and most powerful gear.

It wasn't all good news, though. Battle.net's late addition to the package meant that it wasn't quite as secure and balanced as it could have been, allowing cheaters who had altered stats and equipment to play with people doing things by the book, the scoundrels often using their ill-gotten power to screw over other players. This aside, Blizzard had clearly stumbled across something wonderful with *Diablo*, though it was far too early to be resting on laurels…

Diablo: Hellfire (1997)



The huge popularity of *Diablo* on its debut led to the inevitable release of an expansion later that year in the form of *Hellfire*. Oddly, the add-on was not developed by Blizzard but by Synergistic Software for Sierra, leading to the content it includes and the additional narrative embellishments widely being written off as non-canon. It was hardly the most feature-filled of content packs either way – fans wanted more than a couple of new self-contained areas and a handful of extra unique items, though the expansion was probably worth it for the extra character class it provided in the form of the monk.

Whereas the three initial classes each clearly focused on a single stat – strength for the warrior, magic for the sorcerer and dexterity for the rogue – the monk was a combination of all three archetypes and a malleable class that could be built in a number of equally potent ways. It seems as though he wasn't originally meant to be the only new addition to the game's cast of adventurers either, as fiddling around with some of the config files allowed access to unfinished classes like the bard and the barbarian, as well as unlocking a few quests that never made it into the final product.

Diablo II (2000)



Building, as it did so well, on all of the original game's successes and shortcomings, *Diablo II* is rightly revered as one of the finest examples of its genre ever made. Blizzard took everything on board, complaints about the original's length acknowledged with a far chunkier campaign, a whole new selection of more interesting classes, and a much deeper loot pool, bringing it all together to create a timeless classic.

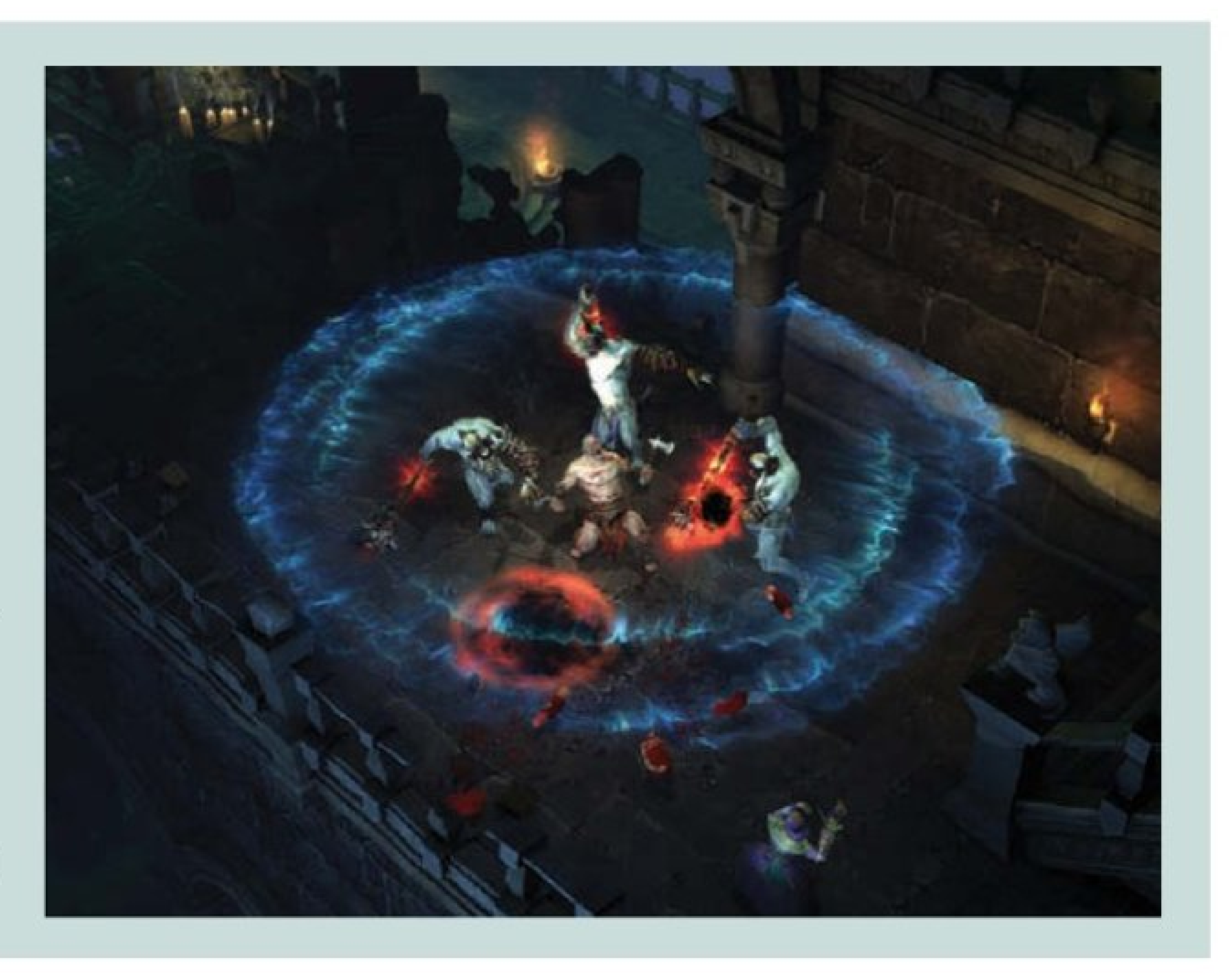
Picking up where the first game left off, with the original's heroes corrupted by the influence of the Lord of Terror himself, *Diablo II* quickly established a whole new set of ground rules. Gone was the single random dungeon, replaced instead with an overworld that led to myriad procedurally generated caves and catacombs, all teeming with nasties to kill and goodies to claim. With such a broadened scope, *Diablo II* felt far more like an epic adventure than its forerunner, and it's for this reason that Blizzard has been actively supporting the game and its loyal player base until only very recently. Few games can boast a lifespan of over a decade and few deserve such dedication, though *Diablo II* can count itself among their number.

This time around, the multiplayer and Battle.net integration were at the heart of the game's design

DEVIL'S THIRD

IT'S BEEN A long time coming, but the mythical third *Diablo* game is now very much a reality, and after so many years of rumours of console versions and radical changes to the formula, it's reassuring to see just how true *Diablo III* stays to its roots. It makes the bold step of maintaining an isometric viewpoint, for one thing – the ultimate no-no in a market where processing power is everything – but replaces the pre-rendered characters with polygonal ones for the first time. Despite some moaning from fans about the art style and palette, the final game is beautiful to behold and not far removed from the grim, dark feel of its predecessors. And the gameplay? Suffice to say there are loads more things to slay and more loot than you will ever know what to do with. So yeah, it's *Diablo* all right. It's just a shame that it didn't ship with the PVP elements, though Blizzard has promised that this side of the game will be ready to go shortly…





SERIES HIGHLIGHTS



SECRET COW LEVEL

■ STARTING LIFE AS a bizarre rumour about one of the original's oddly placed bovine NPCs, the Secret Cow Level became a reality in *Diablo II*. Those cattle put up quite a fight…



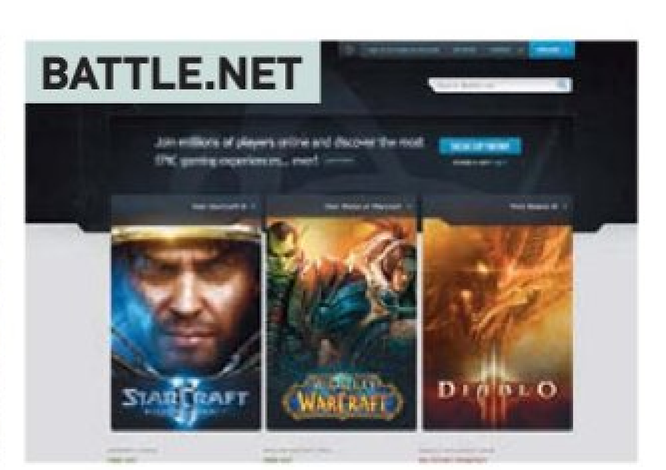
PVP

■ SETTLING INTO A skilled party was all well and good, but when the chest-puffing began, *Diablo* let players settle their disputes physically. Violence never solved anything… except a fight.



HARDCORE MODE

■ THINK YOU'RE ALL that? Hardcore mode begs to differ. The slightest lapse in concentration can lead to the loss of hundreds of hours' worth of work. Oh, and be careful who you party up with.



BATTLE.NET

■ BEFORE CONSOLE-BASED online services developed gated communities for players, Battle.net was the best way to organise online gaming sessions with friends and strangers alike.



THE HORADRIC CUBE

■ WHAT'S BETTER THAN an almost endless supply of loot? Why, an item that combines all your unwanted treasures into all-new gear, of course. The possibilities are practically endless.



BIG BOSS MAN

■ BOTH GAMES BUILD towards battles against Diablo, the Lord of Terror himself. You better hope your gear and skills are in check if you don't want to be dragged straight to Hell.



ALL THAT LOOT

■ WE DREAD TO think how many things we've slaughtered over the years and how many priceless trinkets we've hawked or just thrown away, Clue: it's a lot.



BLIZZARD'S CONTINUED SUPPORT

■ FEW DEVELOPERS KNOW how to maintain a loyal player base better than Blizzard. Its commitment to adding patches and balance tweaks for so long after release is truly commendable.

brief rather than being an afterthought, the enhanced selection of character classes and the existence of abilities that improved when used in a multiplayer environment proof that Blizzard really wanted to build on this interesting aspect of the original. Battle.net's lobbies allowed this to be taken a step further, parties able to recruit appropriate characters in order to fill gaps in their ranks or gain useful party-wide buffs, as is now the norm in MMORPGs.

With the level cap basically doubled from 50 to 99 and a trio of difficulty settings through which to advance your characters, *Diablo II* also made far more of a point of the replayability afforded by its randomised elements and regular loot drops. Skills could be developed further, stats grown to previously impossible highs, and character builds expanded in far more interesting directions than was possible with the original's vanilla classes. Those looking for the ultimate challenge could even choose to brave Hardcore mode, where all items and character progress are lost for good on death – one of the most punishing and upsetting examples of permadeath in gaming history.

Diablo II proved even more successful than its predecessor, and as the community grew around it, so too did the number of ways in which the game could be modified. Mods available today range from complete content overhauls that try to re-create the original game or tell brand new stories, to packs designed to evolve all of *Diablo II*'s best elements further still, upping the level cap into the thousands and exponentially growing the amount of possible loot to ensure that the game pretty much lasts forever.

Many have tried to improve on Blizzard's phenomenal achievement, but few have even come close, this life-devouring and ocean-deep game as fresh and playable today as it ever was. Its status as an all-time classic is assured, even as Blizzard readies the next chapter, and that there are still millions of *Diablo II* devotees pouring hours into the search for the ultimate loot drop is testament to the game's awe-inspiring quality. Will the launch of *Diablo III* eat into the numbers of the *Diablo II* hardcore? Almost certainly. But they'll be back. After all, for many loot-hungry gamers, this is where it all began.

Diablo II: Lord Of Destruction (2001)

Being developed by Blizzard, unlike *Diablo: Hellfire*, *Lord Of Destruction* was as much a content update for *Diablo II* as it was an expansion for it. It offered an additional fifth chapter to the storyline as well as a pair of new character classes, but its best work was in the improvements it made to the main game. A wealth of new loot was added, including class-specific gear for the first time in the series, as well as a host of new ways to customise and improve existing gear such as the addition of Runewords, powerful enchantments that could be added to suitable equipment by socketing particular rune stones in the right order.

Further patches and updates would continue to grow the game with additional content, including the addition of insanely powerful post-game bosses to keep advanced players busy, and balancing tweaks that would improve the experience for everyone. Blizzard's dedication to the cause has been incredible, patching the game as recently as October 2011 in a sign of the studio's desire to continue to give back to the community that shot it to power in the first place.



» [PC] The *Diablo* series' mouse-driven interface is proof that accessibility and depth are not mutually exclusive.



INSTANT EXPERT

Your simple primer to the biggest games, developers and franchises

#2 LOOT DROP GAMES

Why have a bog-standard sword when you can have a Flaming Blade of Lesser Smiting +3? We chronicle the rise of the random loot drop, from its introduction as a way to add mystery and excitement to games all the way to an entire genre rising from the hunt for the shiniest gear

THE BEGINNING

Treasure. It's why we risk our virtual lives time and time again, throwing ourselves in the paths of dragons, demons and everything in between in order to scrape through with our lives and a slightly better hat. Videogames, however, are an incredibly structured medium, delicately designed to ensure that player progression occurs at a pace the developers control and, to this day, most games still play to these rules. Samus's periodically awarded ability buffs in *Metroid*, for instance, dictate the flow of the game, but for less linear experiences, such clinical design simply isn't an option. So when developers started to base games around rulesets from tabletop RPGs like *Dungeons & Dragons*, things had to change. Employing factors cribbed directly from the Dungeon Master's guide books such as loot tables and variable quality levels, early *D&D* copycats like *Dungeon* and *dnd*, as well as any number of popular multi-user dungeons, were among the first games to offer players the excitement of randomised loot, even though they did so only because the source material dictated that they should.

As gaming grew up, so too did the concept of random loot, and it wasn't long before creative developers were putting their own slants on the idea. One of the earliest examples of this is 1980's *Rogue*, a simple ASCII dungeon-crawler whose catacombs were randomised every play. Enemies and loot could appear anywhere, and while better gear and tougher monsters usually only started to come out of the woodwork as you descended to the lower levels, a degree of randomisation meant that it was possible for great gear – or, conversely, horrible cursed items – to spawn early on. Although monsters didn't actually drop any loot, they could often be found protecting it, and the uncertainty of what you might find in the next room and whether to press on through weakness, illness or hunger in the hope that it could be something amazing ties directly into the core tenets of later loot drop games.

> "Randomisation meant that it was possible for great gear or horrible cursed items to spawn early on"

THE HISTORY

Rogue spawned myriad imitators, and the obsession with developing digital adaptations of the *D&D* ruleset continued as well, with many a fantasy epic randomly rewarding mighty feats. But in a traditional *D&D*-style game, the best loot would come only at the end of a campaign. For impatient gamers, this would never do, and for those who found the random goodies of 'roguelikes' such as *Dragon Crystal* frustrating, the release of Blizzard's *Diablo* marked a welcome turning point for gaming and the birth of another new sub-genre.

The 1997 PC game took inspiration from both roguelikes and fantasy RPGs, but with every enemy in the game having a chance of dropping something rare or unique, gaming had finally found a balance between constantly rewarding players and giving them bigger and better loot to strive for. Where once a zombie may have had a chance to drop a half-decent helmet, *Diablo*'s flexibility meant that said helmet could have any number of properties beyond its basic armour value. Killing legions of the bastards, which would once have simply resulted in enough helms to equip a small army, became interesting thanks to this variance, and the loot drop game as we know it today was born.

Diablo was an overnight success, and its ingenious way of making every encounter important through the possibility of rare equipment quickly became a staple of not only loot drop games but RPGs in general. But while others imitated, only Blizzard could improve on its own success. *Diablo II* launched in 2000, building on just about every aspect of the original and cementing itself as the pre-eminent loot drop game, perfecting a formula that is still being copied to this day. In the 12 years since, countless pretenders have attempted to dethrone the reigning lord of the loot drop underworld with little success – it's testament to the game's timeless quality that millions still play it today over Blizzard's Battle.net service. The almost endless number of equipment modifiers mean that even those who have been playing the game since release can still be finding new and more potent gear, proving beyond all doubt that the loot drop formula laid out by *Diablo* adds longevity like almost no other feature in gaming history.

BITE-SIZED INSTANT EXPERT

- **The concept of random loot drops originates from the *D&D* tabletop RPG ruleset, where rare and unique items can be occasionally obtained as quest rewards.**
- *Rogue* is considered to be the originator of the loot drop genre, the 1980 adventure among the first to employ randomisation and equipment variety outside a *D&D* setting.
- **Blizzard's *Diablo* set the template for the traditional loot drop game as we know it, fusing tabletop reward structures with a much faster-paced distribution of unique equipment.**
- *Diablo II* is the most successful loot drop game of all time and is widely considered to be the finest example of the genre, some 12 years after its release.



THE LEGACY

Diablo's legend might live on, but that won't stop Blizzard trying to improve on near-perfection itself. After years of rumours, delays and anticipation, *Diablo III* arrived this month, the franchise that started it all returning to the scene in order to show imitators like *Titan Quest*, *Torchlight* and *Dungeon Siege* how it's done. As gaming evolves and new titles fuse elements from multiple genres, the loot drop concept finds itself absorbed into many modern games outside of the RPG genre as well – Capcom is particularly fond of the idea, with *Monster Hunter* and *Lost Planet 2* both on board with the idea of rare drops encouraging continued play, plus 2K's *Borderlands* has pushed the concept further than any other game, insane weapon variety meaning that there are billions of different guns to be discovered and used.

FIVE TO TRY

Rogue

Developer: Michael Toy and Glenn Wichman **Year Released:** 1980



The 1980 original that inspired an entire sub-genre, *Rogue* is as playable today as it ever was. Simple ASCII presentation leaves a lot to the imagination and random maps mean the game is never the same twice, even if it can also make life incredibly difficult or painfully easy based on how the first few levels play out.

Diablo II

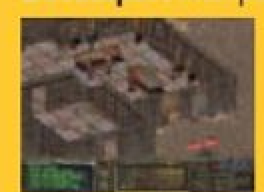
Developer: Blizzard Entertainment **Year Released:** 2000



Probably the most famous game in the genre and arguably still the best example. Blizzard's fantasy romp might start out slow, but it soon picks up pace, chucking around all kinds of goodies. With the addition of multiplayer – plus a Hardcore mode that introduced permadeath if a character was defeated – it's not hard to see why *Diablo* is still top dog.

Fallout

Developer: Interplay **Year Released:** 1997



Interplay's post-apocalyptic RPG differs from most loot games in that its combat is turn-based. Still, corpses and containers could offer up all manner of random equipment, something helped even further by the game's open-plan structure. Unconventional, perhaps, but the first two *Fallout* games still hold up really well today.

EverQuest

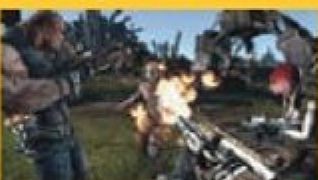
Developer: Sony Online Entertainment **Year Released:** 1999



MMOs have evolved from the classic loot drop games of old, the primary difference being that the best gear will be buried away so deep that only well-organised teams even have a shot at getting hold of it. SOE's MMORPG is among the more well known, but pretty much every MMO owes its reward structure to loot drop games.

Borderlands

Developer: Gearbox Software **Year Released:** 2009



Okay, so it's not retro, but with gun mods and variables offering vast numbers of weapons, it'd be rude not to flag up this ultimate evolution of loot drop principles. The sequel, due this year, takes this to a whole new level, though you could argue that having such an insane range of permutations is just overkill.

WHAT MAKES A GOOD LOOT DROP GAME?

When the formula has been distilled so effectively, the essential components become clear…



Frequent drops

Much hangs on the excitement of finding that one amazing weapon or trinket, so it's important to have items drop regularly. Most will be junk, sure, but sifting through the useless stuff is part of the fun. It'll all be worth it when you eventually stumble across something spectacular…



Randomisation

Variables are crucial to a loot drop game, and the more possibilities there are for unique items, the more longevity it can boast. It's important for these to be able to stack too so that if you get *really* lucky, there's a chance of a new item having multiple complementary buffs.



Item sharing

With many games using a class system, there will always be random drops that your character wouldn't want or be able to use. Sharing – whether between solo save files or other human players – mitigates this disappointment and gives everything you find a chance to be put to good use.



Crazy rarity

Low drop percentages can be annoying, but they're crucial to making the best gear worth shouting about. Knowing that any enemy could drop the best weapon in the game ensures that there's never the feeling of grinding. Even the puniest foe could cough up the goods.



Multiplayer

While not essential, competitive and/or co-operative multiplayer can help alleviate the feeling that the game is just one long slog. Character classes often complement one another for a better overall experience, but try not to argue too much over who gets what…



BLUFFER'S GUIDE TO FLIGHT SIMULATORS

Since the dawn of time, man has wanted to fly. Turns out it's expensive and not without risk. Ian Marks looks at options for armchair pilots

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GEAR UP

FLAPS

THRUST

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First there was Icarus, the boy who could fly, even if not for long. Then came Leonardo Da Vinci, who invented lots of flying machines but couldn't be bothered to test them. At last, in 1903, the Wright brothers changed the world and invented a powered aeroplane. For a while this was enough, but then, in the late Seventies, many people decided that rather than risk their neck – and their wallet – by actually learning to fly, they could do it at home in front of their shiny new 8-bit micros. Why bother actually going up in the air, with all the complications that involved, when they could stay sitting in their brown velour armchair, watching *Wonder Woman*, and yet still be flying a plane? And that is how the idea for a flight simulator program was born… probably.

8-bit simulators in the UK

In the Eighties, Rediffusion was spending millions upon millions of pounds developing flight simulators for the aviation industry, building them around room-sized mainframe computers, with Winchester disks and high-end graphics systems. Then some blokes from London decided this was all a bit unnecessary and that proper flight sims were written in 16K on a small black wedge-shaped computer.

While Psion's *Flight Simulator* (1982) for the ZX81 wasn't the first microcomputer flight simulator – that honour goes to Bruce Artwick's program, which we'll come to later – it was the first one to really reach our shores and make an impact. Squeezing a complicated program like a flight simulator into Sinclair's machine was audacious, and many people probably expected an instruments-only game. They were to be happily proved wrong. *Flight Simulator* had a proper window view, with a rolling and pitching horizon. All right, so the horizon was a little bit blocky – well, quite a bit blocky actually – but if you squinted and pretended you were flying over the Giant's Causeway, it worked really well.

Now wannabe pilots had an outlet. No longer would they have to be content with setting up fishing wire from the top bunk to play



» [Spectrum] *Nightflite* had a neat way around the technical limitations, but it made for dull visuals.

» [Spectrum] Looking for the elusive Lake Orb in Psion's *Flight Simulator*. We know it's around here somewhere.



» [Spectrum] *Fighter Pilot* changed Spectrum flight simulators… mainly because you could shoot things.

"Aviator enabled you to be Ginger from Biggles"

Airfix *Flight Deck*; they could now fly around all day, without the fear of garrotting themselves when they forgot they'd left it set up and dinner was announced.

Although *Flight Simulator* was good, within a year something better had come out for us home pilots: Psion's ZX Spectrum *Flight Simulation*. This was everything its ZX81 predecessor was, but with improved 256x192 resolution, rather than a miserable 64x48. Those extra pixels really made a difference to the flying experience. Now we had runway lights to entertain us, and realistic-looking controls and instruments.

For frustrated squadron leaders, it was a dream come true. Admittedly, there was not a lot to do. You could take off, fly about and then land again, and that was it apart from adding in wind effects. There were three lakes to find too, called Long, Orb and Tri. These were shaped as you'd expect: long, circular and triangular. However, there was soon to be a flight simulator for most 8-bit micros of the day that took the flying model, but added in guns.

That game was *Fighter Pilot* (1983). While it was still a technical program that took some learning of the controls before you could get anywhere with it, that patience was rewarded handsomely, with some excellent dogfighting.

It turns out that those flight physics weren't just made up either. David Marshall, who wrote the game for Digital Integration, explains how he came to be writing flight simulators: "It was a strong personal interest of mine, which grew largely from knowledge gained from my degree in aeronautical systems engineering, followed by my time at RAE Bedford."

This background in aeronautics really shows through in gameplay, and it is also clear that a lot of research went into the game. "The program was based upon the F-15 Eagle," David explains. "There is a surprising amount of performance data available in the public domain, in books and magazines. It probably took about six to nine months to write. The greatest challenge was the implementation of the 3D runway perspective and the modelling of the aerodynamics."

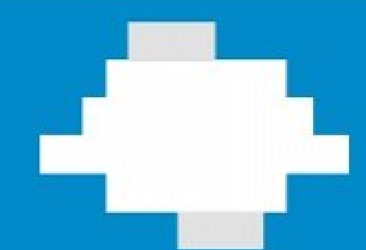
At the time, six to nine months was a long time for software development, which shows the commitment that David was willing to put into getting his creation just right. When released, though, this hard work paid off and David was rewarded with great reviews.

"I was delighted!" he recalls about when the scores came out. "The program was voted best UK program of the year, and the title really launched Digital Integration."

From that one program, Digital Integration grew into a huge software house of the Eighties. Conversions of *Fighter Pilot* from the ZX Spectrum original appeared for almost every home micro, and led to the company releasing many more simulator programs.

Another early UK flight simulator of note is *Nightflite* (1982) by Hewson. In a bid to overcome the limits of the Spectrum, Hewson decided to set the simulation at night, which meant that out of the window you only saw little pinpricks of light. It worked okay, but made for rather uninteresting flights.

Aviator was written by Geoff Crammond for the BBC Micro in 1983. As you'd expect from Crammond, it was a quite brilliant piece of programming, enabling you to be Ginger from *Biggles*, as you flew a Spitfire. It was all represented in vector-style graphics, but there were mountains, a town and a bridge to fly around. Although it featured monochrome Mode 5 graphics, it was one of the best early home flight simulators, even having



TAKING FLIGHT

Many developers have offered to take us to the skies. Here we look at some of the most important flight simulators

Red Baron (Arcade)

RELEASED: 1980 PUBLISHER: Atari
DEVELOPER: In-house

Red Baron doesn't feature any of that altitude or flap adjustment malarkey, but it is still definitely an early flight simulator. Flying your biplane, you get to shoot down vector enemy aircraft. It's a bit of an airborne *Battlezone*, and also an early example of playing as a character who wasn't one of the 'good guys', as here you play the titular German flying ace himself.



Flight Simulator (ZX81)

RELEASED: 1981 PUBLISHER: Sinclair
DEVELOPER: Psion

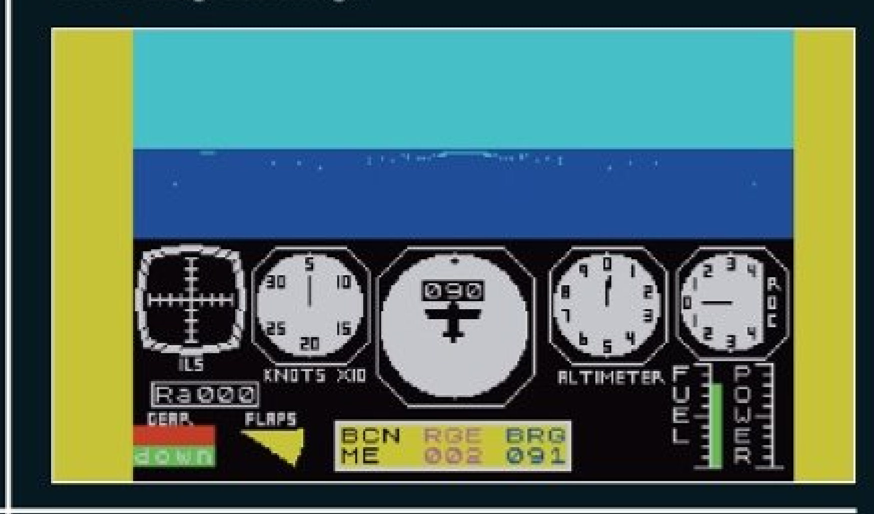
Flight Simulator is amazing for one simple reason: it's a flight simulator on the ZX81! Not only that, it's a good one too. Unlike some early flight simulators, the display does not just show dials and numbers, but rather actually shows the horizon as it rolls, rises and falls. It also goes at a good pace too, with some realistic instruments simulated.



Flight Simulation (ZX Spectrum)

RELEASED: 1982 PUBLISHER: Sinclair
DEVELOPER: Psion

Taking the ZX81 game and releasing it on the Spectrum, the graphics were always going to improve, but the level of detail was stunning. We're not sure why the ground is blue, but frankly we don't care. *Flight Simulation* is a proper, grown-up program that made you believe that the little rubber-keyed box could do great things.



Flight Simulator II (various)

RELEASED: 1982 PUBLISHER: Sublogic
DEVELOPER: In-house

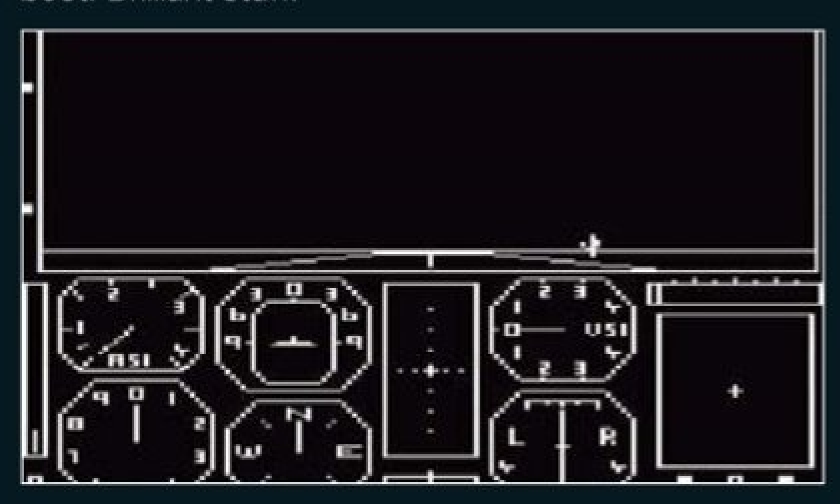
Before Microsoft bought the franchise, Sublogic wrote this ultra-realistic simulator. Available on many formats, from the C64 to the Apple II, this second version was a vast improvement. With runways, radio, beacons and more, it's the simulator that changed everything. So realistic that you could actually learn flying skills from it.



Aviator (BBC Micro)

RELEASED: 1983 PUBLISHER: Acornsoft
DEVELOPER: Geoff Crammond

Crammond is a genius, and this early program of his confirms this fact. *Aviator* puts you in the cockpit of a Spitfire, and lets you fly around scenery that includes a river and a suspension bridge, which you can zoom under if you're skilled enough. You can also choose a straightforward flight, or one with an alien invasion to boot. Brilliant stuff.



Fighter Pilot (ZX Spectrum)

RELEASED: 1983 PUBLISHER: Digital Integration
DEVELOPER: DK Marshall

Taking the flight simulator idea and adding in violence was a great move by Digital Integration. You could choose to jet across the scenery in your fighter plane, just enjoying the view, or you could choose to go after the enemy – a triangle – and shoot it down. Oddly, your fighter wasn't armed to the teeth, only having a machine gun and no missiles.



F-15 Strike Eagle (various)

RELEASED: 1985 PUBLISHER: MicroProse
DEVELOPER: Sid Meier

MicroProse released many a simulator on the market in the Eighties, but this is one of its first, and one of its best. An un-PC plot that involved bombing Libya and a whole arsenal of missiles and bombs added to the excitement. Authored by Sid Meier, it was a truly brilliant and immersive game, showing that simulators could be exciting as well as realistic.



Flight Simulator 3.0 (PC)

RELEASED: 1988 PUBLISHER: Microsoft
DEVELOPER: In-house

Microsoft saw the potential of Sublogic's *Flight Simulator* and snapped it up. *1.0* and *2.0* were pretty much the same game, but *Flight Simulator 3.0* was the game-changer. Offering a huge variety of plane types and airports, it became an industry standard. *Flight Simulator X* was the last of the line, but recently a new game called *Flight* has been released.



Pilotwings (SNES)

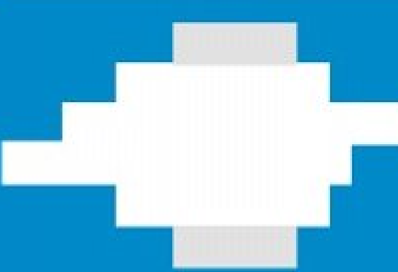
RELEASED: 1990 PUBLISHER: Nintendo
DEVELOPER: In-house

Pilotwings is not a particularly realistic simulator, but it brought the fun back into the genre, making people who would never dream of playing Microsoft's dry old game suddenly take notice. Allowing you to fly hang-gliders, parachutes and light aircraft, the emphasis wasn't on complication, but rather on enjoyment, setting the player challenges.





» [PC] Looking Glass Technologies' *Flight Unlimited* focused on aerobatics.



realistic g-force, which meant the wings fell off if you climbed or dived too fast.

The rest of the world

Of course, the rest of the world – and, for that, read 'America' – had never heard of the Spectrum, and were not playing their flight simulators on rubber-keyed machines. Most were getting their aerobatic kicks on the Commodore 64, and that's not a surprise either as some of the best flight simulators ever created were written for that machine.

Before we get into a whole heap of Commodore sims, though, it's worth considering the Apple II, because that is the machine that started the whole home micro flight simulation boom. This accolade came about because Bruce Artwick decided to turn his university thesis on graphics and 3D flight into a simplistic game on the aforementioned Apple machine. *Flight Simulator* was a revelation when released by Sublogic in 1979, and with its two-gauge display and view of the horizon was the first program ever to give people the ability to fly a plane in their own home.

Sublogic's *Flight Simulator*, after conversions to computing behemoths like the TRS-80, was eventually superseded by the cunningly titled *Flight Simulator II* in 1983. The follow-up was a completely different beast to the original, and pretty much changed both the way flight simulators looked and the way people played on them. By 1984, *Flight Simulator II* was ported to the C64 and the Atari 8-bit range, and suddenly people with these fairly cheap computers could simulate real flight in their own home.

Playing *Flight Simulator II* on the Commodore 64 is a bit of a frustrating experience, as it is not the fastest game in the world, even for a flight sim. There are times when it really seems to chug along. However, this takes nothing away from the sheer detail levels that the game introduced. Control towers, pylons, ground buildings, water and different airports – they are all there. It's a program that even ten years before would have been unthinkable on a high-end civil aircraft simulator, let alone a home computer. It sold well and caught the eye of a certain company called Microsoft. We'll look in a bit at what the Seattle software behemoth did to the franchise.

While all this was happening, another company was writing flight simulators for Commodore and Atari machines that again took the flight idea and added in weaponry. This company was MicroProse, and its simulator output in the Eighties was simply incredible.

MicroProse would create such simulators as *F-15 Strike Eagle* (1987), *Gunship* (1987) and *F-19 Stealth Fighter* (1990). All of these games did not just simulate the controls of flying these aircraft, but added in missions and scenarios. Usually these involved bombing an unstable Arab country, but in the Eighties if this was good enough for Ronald Reagan it was good enough for home simulator users. Loading up *F-15 Strike Eagle* today is a far more rewarding experience than *Flight Simulator II*. The whole game simply flies along – pun intended – at a great speed, and the controls just feel right. It is, put simply, a masterpiece, and the sheer excitement when you manage to shoot down an enemy plane with one of



» [Arcade] While not truly a flight sim, *After Burner* has many similarities with the genre.

TOP GUNS

The high-flying publishers that ensured the growth of the humble flight sim

Psion

Psion had a close relationship with Sinclair, and its games were generally published through Sinclair's own label. It released *Flight Simulator* for both the ZX81 and the Spectrum. The company name is short for Potter Scientific Instruments, after the man who formed the company, David Potter. Psion was famous for its *Horace* series of games, and *Flight Simulator* showed technical programming skill on limited hardware.



Digital Integration

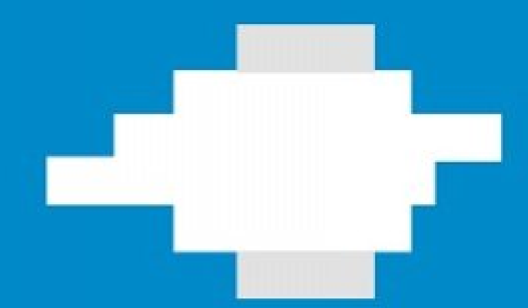
Digital Integration released a series of flight simulators for 8-bit computers in the Eighties. Its biggest release was *Fighter Pilot*, a re-creation of an F-15 fighter jet. Later releases included *Tomahawk*, a military helicopter simulator based on the Apache AH-64; and *Tornado*, a program based upon the Panavia Tornado. Almost exclusively writing simulator software, Digital Integration continued into the late Nineties when it sold out to Titus.



Sublogic

Sublogic was formed by Bruce Artwick in the late Seventies after he devised a 3D graphics program on the Apple II to simulate flight. Partnering up with Stu Moment, they created the famous *Flight Simulator* program for 8-bit computers. The program was ported to most 8-bit microcomputers until it was licensed to Microsoft in 1982, where it would quickly become the industry standard through strong support over the years.





your missiles is one of pure gaming joy. Load it up yourself and you won't be disappointed.

MicroProse's *Gunship* did for helicopters what *F-15* did for jet fighters, and allowed you to take control of a heavily armed death-bringing machine. What's most impressive about the game is that it does not compromise the simulation element. The gunship is a pig to fly, requiring a delicate balance of inertia to get right. If you fail to read the novel-sized manual then you won't be able to fly anywhere. How many games nowadays require that sort of dedication to learning the controls?

Back in the UK, in 1985 Digital Integration was also releasing a multiformat helicopter sim called *Tomahawk*. We asked Dave Marshall whether it was a challenge creating a realistic helicopter simulator. "Very much so," he recalls. "The aerodynamics of a helicopter are totally different. The other main challenge was the fact that helicopters fly a lot closer to the ground, so I had to devise a method of dramatically increasing the ground detail.

"Getting the helicopter to feel realistic was a major challenge, together with increasing the ground detail without the program grinding to a halt!"

Clearly both MicroProse and Digital Integration were pushing the limits of both their programmers and the home computers involved.

Other worthy 8-bit simulators of US origin are *3D Red Baron Dogfight* for the Atari computer. This vector-style game, released by Sebree's in 1980, tried hard to be a quality flight simulator. However, the fact that it redraws the screen very slowly every time the plane moves makes it a very hard and frustrating game to play. This is a shame, as it had great potential.

Space Shuttle was a program released in 1983 by Microdeal, which, as the title suggests, allowed you to fly the Space Shuttle. It was released on a variety of machines, including the Dragon 32. While not a true flight simulator, it did have very complicated controls, and allowed you to glide the Shuttle back to Earth at the end of the mission.

Civilian or military?

There is a definite split here between the two types of simulator. Games like Psion and Sublogic's flight simulators were clearly civilian-based. They generally involved pootling around the sky, looking at a few scenery effects and then landing the aircraft safely. Real emphasis was placed upon getting the controls simulated properly, and if you didn't know how to open your flaps correctly, then boy were you in trouble.

On the other side, companies like MicroProse were concentrating more on the combat side of flying. In these games you didn't just need to know whether your landing gear was up or down, but also whether you had enough missiles to take out a small town.

Many people enjoy both types of simulator, but there are purists who really only go for the flying aspect and want a realistic representation on their computer. The company that has made these people's dreams come true for nearly 30 years is Microsoft.

Microsoft arrives

The software giant saw the potential in Sublogic's *Flight Simulator* and decided that rather than write its own version, it would just buy it and rename it – for any Microsoft historians, there's a pattern developing there, as that is pretty much what it did with MS-DOS too. What Microsoft did with its new acquisition, though, is to really change the way we played simulators on our computers by introducing reality and choice that we'd never really seen before. Its first product was called *Microsoft Flight Simulator 1.0* and ran on IBM PCs with CGA graphics, and it was pretty much a port of Sublogic's original game. With subsequent releases, though, Microsoft took *Flight Simulator* further and further away from that game and introduced more and more detail.

Microsoft Flight Simulator 2.0 was released in 1983 and already the detail level was improved over Artwick's original program – not that he minded, as he was now working for Microsoft on the series. Anyone who played this game in the Eighties would recall just how


» [Arcade] It might be arcade-like to play, but there is a real feeling of flying in *Red Baron*.


» [Lynx] *Blue Lightning*, like *After Burner*, is viewed from the third-person.


» [SNES] Nintendo took all that was good about simulators and made *Pilotwings*, the king of its casual niche.

> "Fail to read Gunship's novel-sized manual and you won't be able to fly"

Microsoft

Microsoft's name is almost synonymous nowadays with the flight simulator genre, but it only achieved this by licensing someone else's software. Once it had the licence, though, it took the program on to whole new levels. 2006's *Flight Simulator X* was thought to be the last edition, but just this year Microsoft released a new free-to-play program simply called *Flight*, which was planned as *Flight Simulator*'s successor.



MicroProse

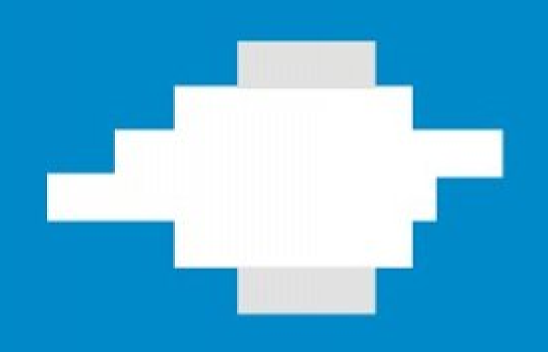
Formed by Wild Bill Stealey and Sid Meier in 1983, MicroProse was famous for simulating anything that moved. Submarines (*Silent Service*), railways (*Railway Tycoon*) and even human society (*Civilization*) were represented at various points. Its flight simulators, though, are classics of the genre. *F-15 Strike Eagle*, *Gunship*, *Spitfire Ace* and *F-19 Stealth Fighter* kept many a simulator fan amused for years. In 1993, MicroProse was bought by Spectrum HoloByte.

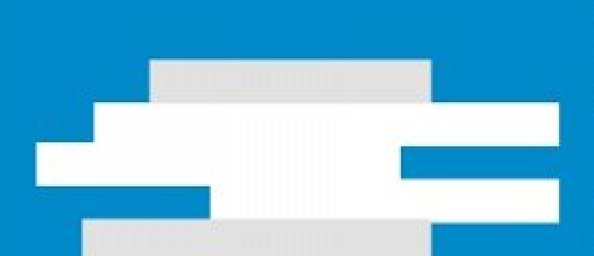




“An industry was formed making add-ons for Flight Simulator”


» [PC] *Gunship* is a great, if complicated, game. Try getting airborne without reading the flight manual.





incredible it was at the time, compared to most home micro flight simulators. Virtual pilots will fondly remember flying over New York City, trying desperately to crash into the head of the wireframe Statue of Liberty, or attempting to land on the Brooklyn Bridge. You could even fly between the towers of the World Trade Center if you were skilled enough.

Microsoft saw the military simulators and wanted a piece of that action too. *Flight Simulator 2.0* had a World War I mode that saw you chase an enemy biplane across a small map, trying to shoot him down before he shot you. It was actually quite fun, and it was reminiscent of the Atari arcade game *Red Baron*, albeit with more complicated controls. It also had navigation beacons, radio traffic, and multiple views out of your plane window. Originally running on IBM PCs, it was ported to the Apple Macintosh also, and there were versions of *Flight Simulator* for the Atari ST and Commodore Amiga, which differed slightly and were still under the Sublogic label. Even more confusingly, the Atari and Commodore versions were called *Flight Simulator II*, even though those computers had never had a *Flight Simulator I*.

As the version numbers increased, so did the level of detail. *Flight Simulator 3.0* added true 3D graphics in 1988, as well as a variety of aircraft to choose from, including airliners. New airports and scenery packs were also added. Want to fly across Europe in your Cessna? No problem. Just hand Microsoft some more money and it'll sell you the map.

Soon *Microsoft Flight Simulator* was the industry standard, and it was so realistic that you could actually learn something about flying a real aircraft from playing it. Huge books were published explaining the finer points, and a whole sub-industry was formed making add-ons, improved aircraft and different airport scenarios.

By 2006, though, with *Flight Simulator X*, Microsoft had seemingly grown bored of the series, and announced that it had finished with it, to the distress of home flying aces everywhere. That isn't the end of the Microsoft story, though, as only this year it released *Microsoft Flight*, a new simulator program. It's free-to-play, but with many purchasable add-on packs. On initial play it seems more geared towards entertainment than the slightly anal *Flight Simulator* series, but time will tell where Microsoft wants to go with this one.

There were other programs that, at times, threatened to take Microsoft's simulator crown away from it in the Eighties and Nineties, but none ever really achieved it. A 'good try' award must go to *Flight Unlimited*. Written by Looking Glass Technologies in 1995, it ran on PC and Mac computers, and emphasised the fun element by introducing acrobatic challenges and races.

More recently, Laminar Research's *X-Plane* has become the technical flight simulator of choice, and has been ported to almost everything, including PC, Mac, Linux, iOS and Android.

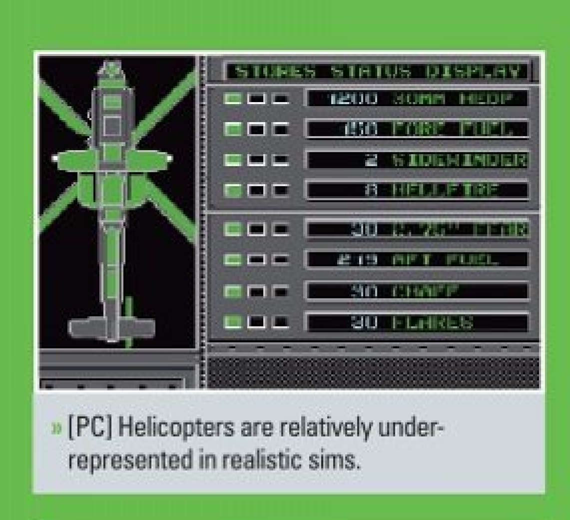
Not quite simulators

While all this 'real' flight simulation was going on in the Eighties, there were also a number of games released that were not quite simulators, but used the idea to produce entertainment.

Atari's *Red Baron* (1980) was probably the first, seeing you pilot your biplane across vector mountainous terrain while shooting down enemy aircraft with your machine gun. It had the view of a traditional flight simulator, as well as the joystick controls, but there was no real simulation here. Great gameplay, though.

Also in the arcades, *Mach 3* (1983), *Firefox* (1983) and *After Burner* (1987) were sim-alikes, with their control sticks and flying mechanics. These games ran at a pace that meant most of the real simulation had to be left out, however. An arcade flight sim was never really on the cards, as it's hard to imagine an arcade owner being happy with a punter putting in 50p to take a 35-minute flight.

In the home, there were some simulator-styled games that simplified the format in the name of entertainment. Imagine's awful Spectrum title *Zzoom* (1983) – which was only good if you shot the


» [PC] Helicopters are relatively under-represented in realistic sims.


» [Spectrum] David K Marshall developed both *Tomahawk* and *Fighter Pilot* on the Spectrum.



THIS AIN'T NO GAME



Flight simulators have been around almost as long as aircraft themselves. Early flight sims were mechanical affairs, such as 1909's Antoinette rig, which was used to familiarise pilots with the controls of the actual aircraft. These mechanical machines continued for many years, including the famous Link Trainer.

The next step for flight simulators was getting accurate representation of instruments. British companies like Rediffusion were leaders in this field, and simulated many aircraft in World War II.

After that came the need to simulate motion, and in the Fifties simulators added hydraulics that made the pilot believe the plane had weight and velocity. Once this was achieved, the next hurdle was to actually have a visual representation of the world outside shown to the pilot.

Initially, this was achieved by using points of light to simulate the runway, and this was the approach for many years. The problem of actual graphical representation of the ground proved tricky, as the processing power did not exist in the Sixties and Seventies. By the Eighties, though, there were simulators around with virtual renderings of the world through the windows, and these developed into the staggeringly complex, highly realistic systems we have today.

Modern flight simulators are so true to life that they can be used to train pilots on new aircraft without the pilot ever needing to leave the ground. In terms of training new pilots, while they cannot actually use simulator time as flight hours, they can nonetheless benefit from the time spent in them.

The UK still has a leading flight simulator manufacturer in Thales Training & Simulation (formerly Rediffusion) near Crawley, West Sussex.

people you were supposed to save, as they flew up in the air in a comical way – had you having to take off, land and fly around, but there was no flying skill needed.

An interesting take on the genre was Durrell's *Combat Lynx* (1984) for the Spectrum. This had a view from outside your helicopter, rather than inside, but retained the complicated simulator controls. While this third-person simulator is not completely convincing, it was quite fun to play. This was particularly the case as you swept low over a hill and appeared the other side, all guns blazing on the enemy – just like *Airwolf* did every week at the end of the show.

There were also strange simulator programs for 8-bit computers like Creative's *Delta Wing* (1984), which even animated the pilot's hand on the joystick, and *ACE* (1986), which had quite a nice bit where you had to refuel in the air. Neither of these games tried to be accurate in their physics or controls, though, so they cannot really be classed as simulators.

Similarly, *TLL* (1984) from Vortex Software for 8-bit computers takes the flight simulator idea and then twists it to make something completely different. Flying your Tornado aircraft over a 3D landscape viewed from above, you get to control speed, altitude and whether you want your sweep wings open or closed. It also has elements of take-off and landing. The best achievement you can have in the game, though, is managing to guide your plane under one of the bridges without crashing into the water.

The Dam Busters (1985) from US Gold on multiple 8-bit systems really looks the business when you first load it up, with superb representations of all the instruments and the view from the cockpit. Ground elements such as searchlights are also superbly re-created. Sadly, the look of the game is all it really has going for it. In play it proves very complicated, you having to do every job on the Lancaster bomber yourself, from pilot to navigator to gunner to bomber, and on top of that any flight element is simplistic, distilled down to simply up, down, left and right. A real shame.

Console simulation

The games console does not easily lend itself to the flight simulator genre, not because they are not powerful enough to run them, but because generally the controllers do not have enough buttons for the job. Nonetheless, some good attempts have been made to meet the arcade and simulation genres halfway.

Super Strike Eagle (1993) on the SNES was a simplified version of MicroProse's computer game. It still played like its more complicated sibling, the cockpit view being the same, but the controls were made easier, and the game skipped out some of the flying sections. Dogfights were made more arcade-like too. All in all, it's a good version and worth checking out if you've never played it.

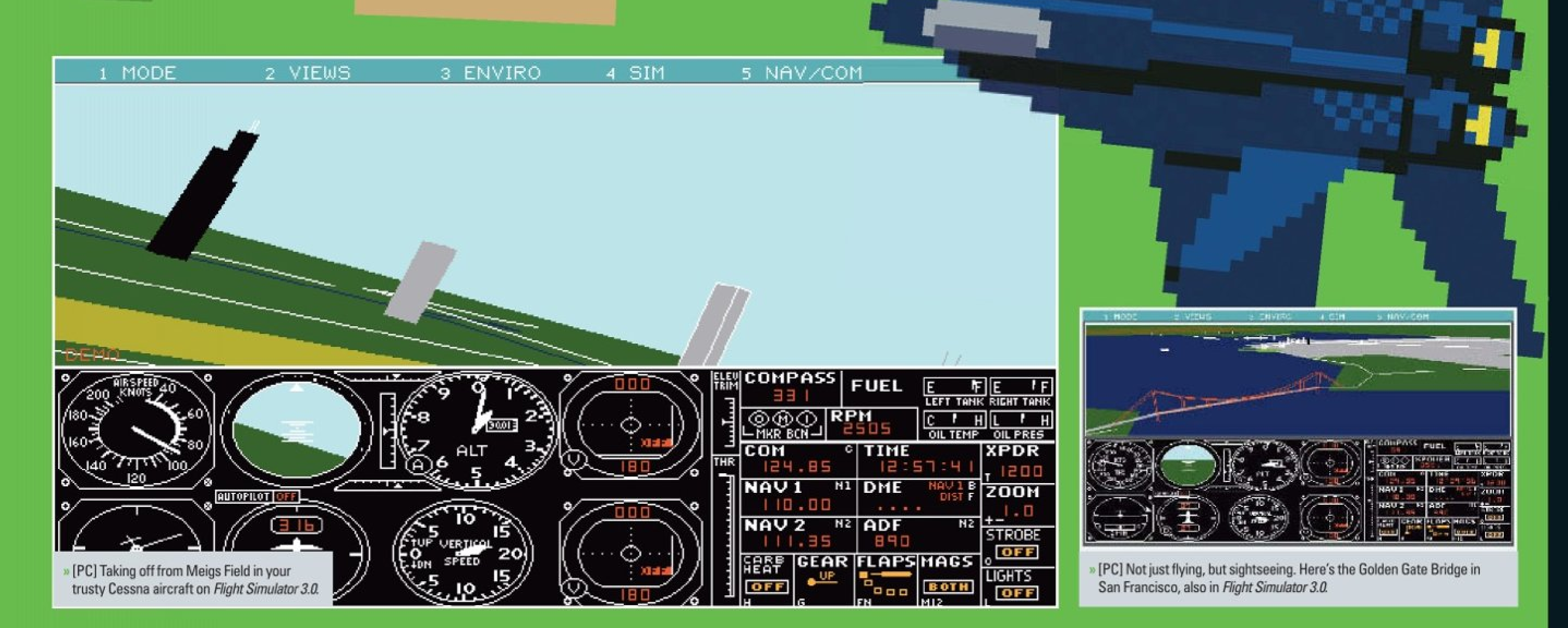
Thunderhawk (1993) from Core Design on the Mega-CD is an arcadey helicopter simulator. While much of the difficult helicopter-flying bit is done by the computer, the view from the cockpit is still impressive, and the feeling of actually flying a heavily armed chopper is achieved nicely. Well worth powering up if you are a Mega-CD owner.

Blue Lightning from Epyx on the Atari Lynx is a stunning game, released in 1989. While only a pseudo-simulator as you view your plane from behind in a third-person view, it is a wonderful *After Burner*-type game that really shouldn't have been possible on the Atari handheld.

Pilotwings (1990) on the SNES is probably the king of console flight simulators. Allowing the player to experience light aircraft, hang-gliders and parachutes, it takes everything that is great about flight simulation and ditches everything that is slightly long-winded (read: boring). *Pilotwings* is third-person – something it shares with many console simulators – so it is not a true simulator as such, but the challenges and mini-games make it a delight to take control. This Nintendo take on the genre works well, and *Pilotwings* is both beautiful to look at and rewarding to play.

Flight simulators may not be everyone's cup of tea. In fact, it would be fair to say that some gamers regard them as the devil's work. Hopefully, though, in this article we've shown you that you can have some fun with the genre. It's not all about fiddling with flaps, joysticks and gears; there can be a whole lot of structured violence in there too. In fact, we'd go as far as to say that there is probably a retro flight simulator out there for every type of gamer.

And that's the real beauty of the flight sim. The genre is so diverse and covers such a wide range of themes that you're bound to find something you enjoy. Just make sure you master the taking off and landing, or it will all end in tears.



» [PC] Taking off from Meigs Field in your trusty Cessna aircraft on *Flight Simulator 3.0*.

» [PC] Not just flying, but sightseeing. Here's the Golden Gate Bridge in San Francisco, also in *Flight Simulator 3.0*.

IMPORT ONLY

» CO-ORDINATES: 35°41' N 139°41' E

GAME ORIGIN

» COUNTRY: JAPAN
» POPULATION: 127,433,494
» CAPITAL: TOKYO
» NATIONAL LANGUAGE: JAPANESE
» CURRENCY: YEN
» TIME ZONE: GMT +9



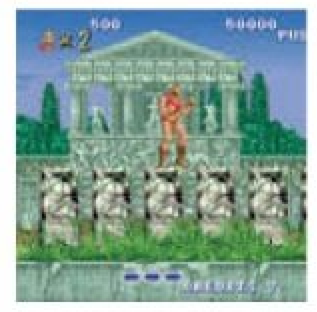


» **PUBLISHER:** KSS
» **DEVELOPER:** IN-HOUSE
» **FEATURED HARDWARE:** SUPER FAMICOM
» **ALSO ON:** N/A
» **GENRE:** PLATFORM
» **RELEASED:** 1995
» **EXPECT TO PAY:** £25+

EVOLUTION OF THE GENRE

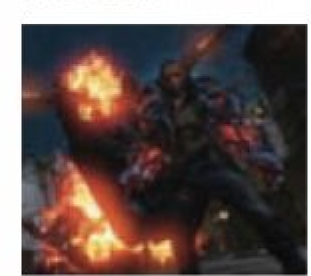
» **Activate beast mode in these two**

Retro



ALTERED BEAST
Whatever you may think of its quality, *Altered Beast* remains one of the most successful arcade games to ever feature a hero with the ability to transform into a series of different beasts.

Modern



PROTOTYPE 2
GET IT FOR: **XBOX 360, PS3, PC**
For a more modern action game starring a shape-shifting hero, there's Activision's *Prototype 2*. It casts players as a sergeant infected with a weaponised virus, which affords him the power to alter his form and assume other identities.

MAJYUUOU

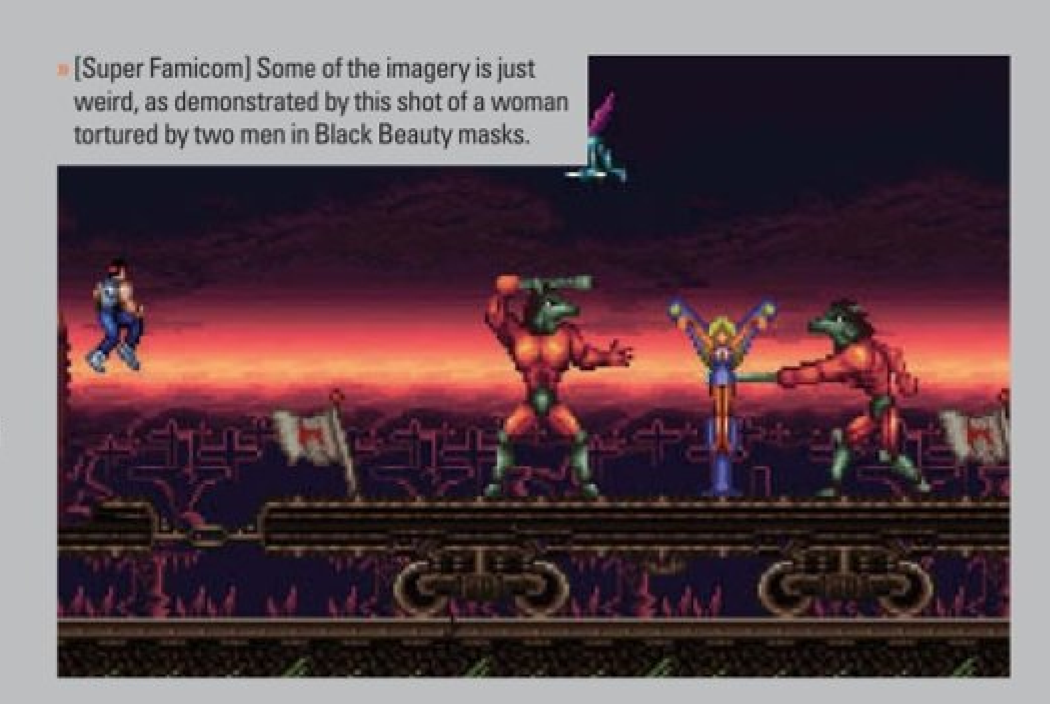
» If Contra's Lance Bean got sucked into the creepy world of Castlevania and then beardy old Zeus appeared on the scene and bestowed him with Altered Beast-style powers, the results would look something like Majyuuou. Stuart Hunt hopes you all like mash…

Little is documented about this obscure and fairly late Super Famicom release, which fuses together elements of *Castlevania, Altered Beast* and *Contra*. Developed by KSS, an anime production company that dipped a toe into videogame development with a modest number of Japan-only titles for the Super Famicom and PlayStation, *Majyuuou* (aka *King Of Demons*) is a decent run-and-gun platformer packed with stunning enemy sprite designs and exquisitely detailed backdrops.

You play as Abel, a guy who gets betrayed by his best mate in possibly the worst way imaginable. Nope, his mate doesn't marry his daughter without seeking consent or let a tramp use his toothbrush, but offers up Abel's wife and daughter as a human sacrifice to resurrect Satan and transform into a powerful demon himself. Following this betrayal, Abel is left with one remaining daughter, but it gets worse, as she's being held captive in Hell. At the beginning of the game, Abel confronts his demon ex-buddy to get her back. What follows is our hero getting his butt kicked, and his late wife gifting him some special powers so he can venture into Hell, finish the fight and rescue their daughter.

The first thing that seems to hit everyone about *Majyuuou* is its pea-sized sprites. Looking like an action figure, Abel isn't the most imposing videogame hero, it has to be said, though he does have a couple of neat abilities. He can perform a useful double jump and has a cool roll manoeuvre to quickly evade enemy attacks. His neatest trick, though, occurs at the end of a stage. After defeating one of the game's main bosses, they spill a crystal that flashes between three different colours. These colours represent three beast forms that Abel can transform into, and each has its own unique set of attacks and skills.

» [Super Famicom] Some of the imagery is just weird, as demonstrated by this shot of a woman tortured by two men in Black Beauty masks.



In terms of weapons, in his normal human form Abel carries a handgun with an unlimited supply of bullets and,


» [Super Famicom] *Majyuuou* has an obvious *Castlevania* feel to its visuals and theme.


» [Super Famicom] *Majyuuou* doesn't rely on much Mode 7 trickery but looks good without it.

GO DEEPER
Abels and demons

YOUR BASIC HERO
» Sporting jeans, a vest, a red bandana and a handgun, Abel hardly looks equipped to take on Hell's army. He can throw a pretty sizeable fireball, though, and his evasive move is a cool action hero roll.

RED JEWEL
» Collecting a red jewel turns Abel into a male harpy that fires green boomerang-style weapons. The roll becomes a handstand and the fireball attack changes into this impressive fire glaive thingy.

GREEN JEWEL
» Pick up a green jewel and he becomes this robot lizard creature, which fires lasers. Its evasive move sees it engulf itself in flames, vanish and then rematerialise, and its fireball is a flaming hula hoop.

BLUE JEWEL
» The blue jewel transmutes Abel into a blue dragon, which attacks using its powerful plasma breath. Its evasive move is a forward dash, and for its special attack it fires large blue dragon skulls.


» [Super Famicom] One of the best stages sees Abel fighting enemies on top of this.


» [Super Famicom] *Majyuuou* never made it out of Japan, but a fan translation is available.

> **"It's wonderfully atmospheric and amazingly detailed, exhibiting the same impressive attention to detail that Konami afforded to early Castlevania games"**

weirdly, can only direct fire in front of him, which proves pretty annoying when facing some of the fidgety flying enemies in the game. By holding down the fire button, he can charge and throw a fireball, and both these attacks and his evasive move vary depending on Abel's form. Nicely, if you select the same form three times, your loyalty is rewarded by transforming into a super version of the favoured beast. Alternatively, choose to mix and match your selections and you get a final fourth form to transform into.

Though a transforming hero is certainly always a nice idea, it's the levels and enemy designs that are the real stars of *Majyuuou*. Setting the game in Hell gave its designers' imaginations the freedom to frolic free, and frolic free those imaginations certainly did. *Majyuuou*'s levels frequently switch back and forth between imposing boss battles and cool action set pieces, and the pace and challenge is often unrelenting. Starting off quite casually with Abel sticking bullets into bats as he ventures through a fiery cave, he's quickly chased by a giant angry grub before falling through the floor and into the sewer system, where he has to start popping the heads of lumbering zombies with his gun. Blood sprays, enemies die in beautifully intricate fashion, and the action, although doing nothing particularly radical, is always entertaining.

Equipped with gloomy visuals and eerie music, each stage is wonderfully atmospheric, displaying the same impressive attention to detail that Konami afforded to early *Castlevania* games. From a crumbling city enveloped in deadly flora to an exhilarating battle against Hell-dwellers and a giant skeleton on top of speeding train carriages being pulled by a giant prehistoric beast made of steel, it becomes understandable why KSS didn't want to cover up its intricate levels with beefy sprites.

But *Majyuuou* isn't perfect. The controls and combat do feel a little stiff, and even though the game politely provides unlimited continues, it still puts up a frustrating fight. The levels are fairly lengthy, and as many are filled with multiple boss battles, often there is a lot of replaying of stages to be done as you spend lives trying to master their devious attack patterns. If we're being critical, it also doesn't contain a single original idea in its Frankenstein's monster of a body. However, if you enjoy a good challenge and love your pixels to be extremely polished, you'll most likely regard *Majyuuou* as something of a hidden import gem.



CASTLEVANIA: BLOODLINES
» Famous for being the only *Castlevania* title to ever grace Sega's 16-bit machine, despite it being a perfect fit for the franchise, Sega fans can at least take comfort in the fact that *Bloodlines* is also one of the best games in the series. With stunning visuals, great presentation, small sprites, solid challenge and plenty of memorable bosses, it's a pretty good substitute for *Majyuuou*.

DESERT • ISLAND • DISKS

Andy O'Neil

What cherished games would you take to the island?

He's gone from a Spectrum in Solihull to Snake-polishing in Texas. Andy O'Neil tells Paul Drury about Samus, Slayer and the delicate art of HD updating

"I spent most of my time doing the business stuff," Andy O'Neil assures us of his recent trip to the Game Developers Conference in San Francisco, "but yeah, there are parties. Sony had one with waiters carrying trays like you see in the movies, and people getting loaded on free booze. It was an interesting mix of the posh and the drunk."

We politely refrain from asking Andy which group he fell into, though we note there isn't a trace of snobbery in his broad Brummie accent and bubbly enthusiasm for the industry he's spent much of the last two decades working in. Born in Solihull, near Birmingham, he was a precocious coder, tapping out little programs on his stepdad's ZX80 while still at primary school. He soon upgraded to a ZX81, followed by a Spectrum, and having learned to code in assembler, he confidently told his careers teacher that it was a videogame programmer's life for him post-school. Then, at age 14, he found something else to keep his fingers busy.

"I joined a death metal band!" he roars in a voice that recalls fellow Birmingham boy Ozzy Osbourne in his bat-biting pomp. "I started playing the guitar and computer programming went out the window."

Perhaps you saw the brilliantly titled Unborn playing The Talbot in Walsall and the back rooms of numerous Black Country pubs during the late Eighties and early Nineties. It wasn't until Andy began studying physics at Birmingham University that he returned to coding once more, his metal phase finally thrashed out of his system. After graduating, he set up his own small business selling computers, but the venture stalled after ten months, partly due to his own reluctance to adopt dubious sales techniques and partly because of the lure of the basement of his mate's shop. For downstairs in Game Over, a videogames emporium situated in Dudley town centre, resided the finest import consoles that 1994 could offer. "The Saturn, PlayStation, the Neo Geo with those cartridges as big as toasters," he recalls wistfully. "And *Tempest 2000* on the Jaguar. Awesome!"

However, Andy didn't spend all his time blasting pulsars and admiring polygons. He put together a demo disk for the PC showcasing his coding skills and, when his sales business failed, he began shopping it around to potential employers. Arc Developments in nearby Walsall, which had recently released *World Cup Golf* on the then-cutting-edge CD-i and 3DO consoles, decided to give Andy his first break in the industry, with little risk to the company's coffers.

"I said I'd work for nothing to get some experience," chuckles Andy. "I thought if I wasn't getting paid maybe I could pull some dole money!"

Andy's new employer, Richard Chappells, was reportedly not averse to such underhand dealings, making the top ten of SpaceBastards.com's infamous list of horrible game bosses, compiled in 1998. However, Andy made the most of his opportunity, and with a fairly free hand to develop whatever game he fancied, he got cracking on *Mass Destruction* for the PC. Commanding surprisingly zippy armoured vehicles, players could run over foot soldiers, *Death Race*-style, or wreak devastation on the highly flammable environment, in a game that unashamedly epitomised mindless fun.

"That's a fair point," agrees Andy. "*Desert Strike* in a tank, wasn't it! Back then, people actually made games for the PC. I was the lead programmer probably because I'd stupidly said I could do it in two months. Steve Deacon did the Saturn version and that was the best one. The Saturn was a horrible machine, a real monster. It could do sprites but it couldn't really do triangles, so 3D was hard. Then there were these two CPUs that, if you did something wrong, went bang. The cursing he did…"

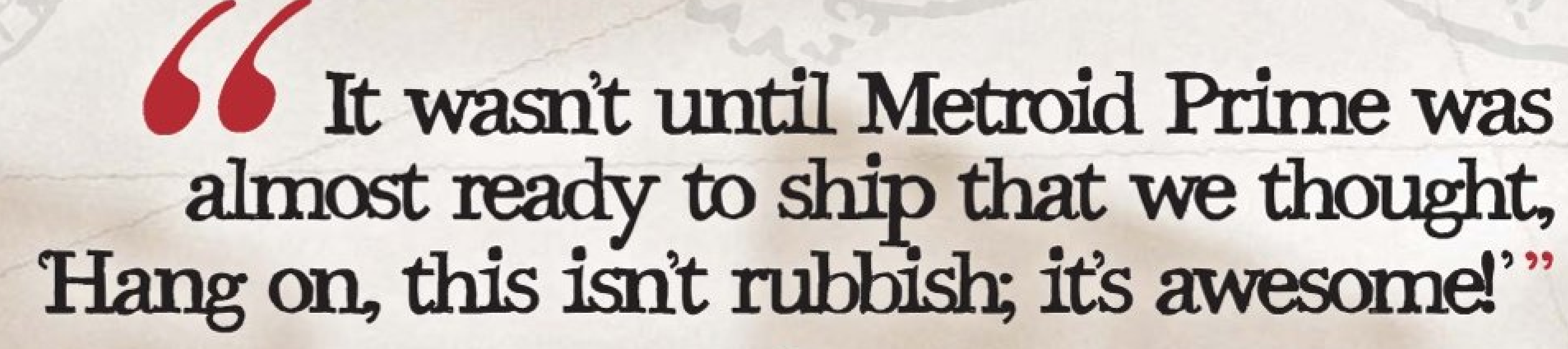
Andy was about to do his share of swearing, too. Arc Developments had become NMS, with Chappells still at the helm, and flush with money from producing *Risk* and *Battleships* games for Hasbro, the company decided to start developing its own original titles. *Outrage* was a little like *WipEout* in a rural setting, with a decent sense of speed and rugged handling, but the boss sadly overlooked the small detail of finding a publisher prepared to put the game on the

Trivia

At NMS Software, Andy worked alongside Chris Urquhart, a seasoned Spectrum programmer, whose work for Ocean includes *Hunchback*, *Cavelon* and *Daley Thompson's Decathlon*.



"I couldn't find one from the thrash metal band, but here's a dodgy photo from when I was in sixth form in a 'arty' band called Just. Claim to fame: played to 300 people at the Hen and Chickens in Oldbury"



"It wasn't until Metroid Prime was almost ready to ship that we thought, 'Hang on, this isn't rubbish; it's awesome!'"

Good things come to coders who wait...

FAMOUS FOR
Metroid Prime

FIRST JOB
Worked in a freezer centre/butchers

CURRENT JOB
Herding cats at Bluepoint

FAVOURITE FILM
Rear Window

FAVOURITE ALBUM
Moon Safari by Air

FAVOURITE BOOK
Trustee From The Toolroom by Nevil Shute

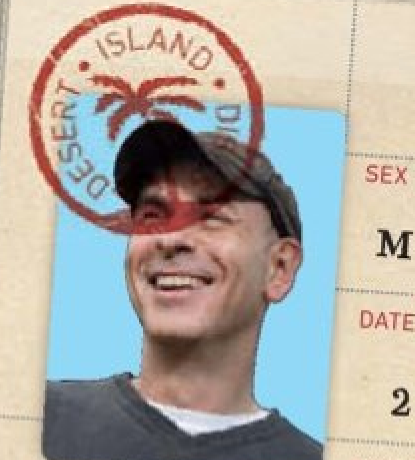
FIRST COMPUTER
ZX80

BEST GAMING ACHIEVEMENT
Beating Zoid's high score on Robotron

BESTSELLING PRODUCT
Metroid Prime

BEST HOLIDAY
Any!

WHO YOU WANT TO BE STRANDED WITH
Elaine Marley



145235-46746546546546

SEX
M

NAME
Andy O'Neil

DATE OF BIRTH
27 MAY 1972

PLACE OF BIRTH
Solihull, West Midlands

BIOGRAPHY
After beginning his coding career in England, Andy moved to the USA at the end of the Nineties to work on Turok 3 and the Metroid Prime series. He co-founded Bluepoint Games, which has produced HD updates of Metal Gear Solid and Ico, among others.

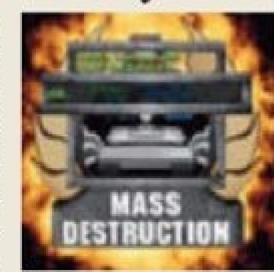
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Photography of Andy O'Neil by Applebox Imaging

Timeline

1997 — 2000 — 2002 — 2007

MASS DESTRUCTION
■ **YEAR:** 1997
■ **VERSION:** PC
Andy's first published game was this zippy tank-based blaster. He recommends the Saturn version, by his mate Steve Deacon, as the best.



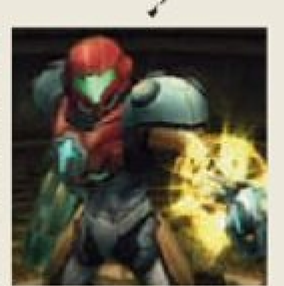
TUROK 3: SHADOW OF OBLIVION
■ **YEAR:** 2000
■ **VERSION:** N64
Andy's first job Stateside took the series away from its dino-hunting roots but still offered some competent FPS action.



METROID PRIME
■ **YEAR:** 2002
■ **VERSION:** GameCube
Big things were expected from Samus's resurrection, and Retro Studios didn't disappoint. A hugely inventive, genre-defining title.

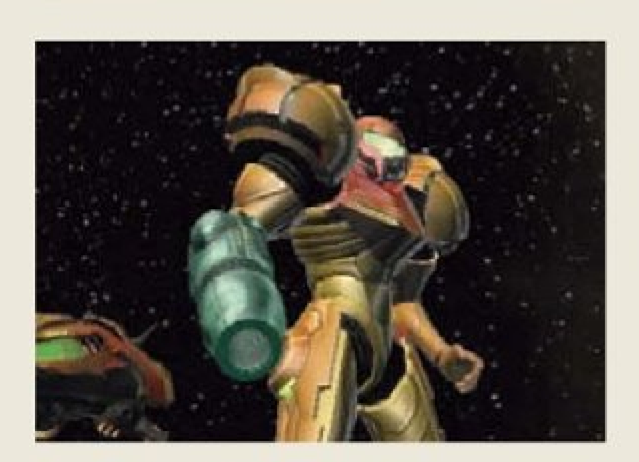


METROID PRIME 3
■ **YEAR:** 2007
■ **VERSION:** Wii
Though Andy left before the game was released, he played an important part in the early transition of the series to Nintendo's new console.



The Team On O'Neil

Here's what **Retro Gamer** has to say about Andy O'Neil's games…



Darran Jones
I had the opportunity to speak to Andy about Bluepoint Games' impressive remasters in 2011. He's a humble, genuinely entertaining bloke, who clearly loves the games he makes. While you should play Bluepoint Games' remasters, it's the brilliance and sheer confidence on show in *Metroid Prime* that really leaves an impression.





Paul Drury
It's not often you get to talk to a man who can effortlessly chat about the intricacies of memory optimisation and particle editors one minute and wanting to be in Slayer the next. A technical wizard, a passionate games fan and a true gent.





Stuart Hunt
I don't know Andy personally, but I've certainly enjoyed the games he has worked on. *Metroid Prime* remains one of the best examples of a 2D franchise being successfully translated to the third dimension, while Bluepoint Games' HD collections are a world away from their competition. I'm genuinely interested to see what his next project is going to be.

shelves. "We were a typical British developer back then," concedes Andy. "Let's just make a game! But we had no direction. We had the tech working and the physics were good, but it didn't look pretty enough and didn't have a hook."

With the project put on permanent hiatus, Andy opted to head south to Somerset-based Tigon Software in 1998. The company had connections with Eighties publishing powerhouse Durell, and soon he was updating *Saboteur,* which had graced the 8-bits in the previous decade. "It did look pretty good," muses Andy. "A bit of platforming, a bit of combat. We had PlayStation and PC versions working, but they never quite got finished. When I was down there, the boss showed me the original *Metal Gear Solid.* I was like, 'What, is that a movie? It's real-time? Oh my god! How are they doing that?' We looked at our game and at that and realised you couldn't be Mickey Mouse. You couldn't be just a small team or a guy in a bedroom any more…"

With this epiphany, together with the disappointment of another unreleased project, he sensibly started to look further afield for employment. He had numerous interviews in the UK, including one at David Braben's Frontier Developments, but this only reminded Andy that you can take the boy out of Birmingham, but you can't take Birmingham out of the boy. "You still get that class thing in Britain, you know what I mean?" he explains. "Posh people saying they'd got a double first at Cambridge and snorting at me being a Brummie. Then I got a call from Iguana in Austin, Texas, who'd seen my CV and invited me for an interview. Shit, a free trip to America!

> "I did meet Miyamoto once, but I didn't want to say anything in case I screwed it up"
>
> *We're sure he would have loved Andy's brogue*

Why not? Everyone there seemed really happy and they took me out for margaritas. It was awesome. It's, like, do I want to work in sunny Texas or get a job in Scotland?"

Waving goodbye to rainy Britain, Andy arrived in the scorching Texan heat of summer 1999 and was quickly assigned to the third iteration of the dinosaur-slaying *Turok* series. We wonder whether moving to the big country to work on a big licence was a major change for a British coder. Andy's answer surprises us.

"There are loads of Brits in the games industry in Austin. Jeff Spangenberg, who set up Iguana, is a really smart bloke. He knew there were loads of really good programmers in the UK that get paid jack shit. He could bring them over to Texas and get them loads cheaper than Americans. Better people for less money! It was a home from home. We'd all go to the pub together and it was kind of like a support group. I wasn't a lonely Brit surrounded by rednecks."



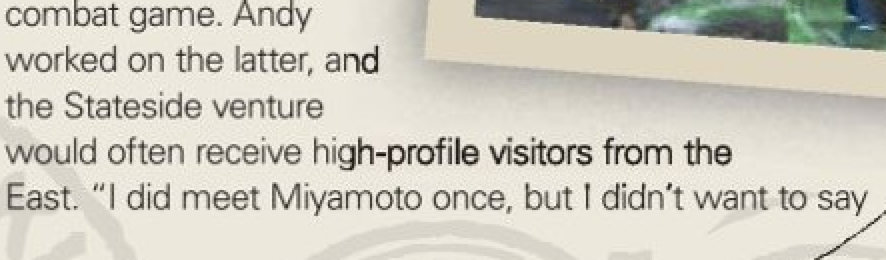
» [N64] It may have featured Joshua Fireseed, but *Turok 3* lacked some of the spark of earlier instalments.

Though Andy enjoyed pushing the N64 for *Turok 3: Shadow Of Oblivion,* he was pleased to get his hands on an early PlayStation 2 devkit, and was soon investigating the intricacies of the machine's unusual co-processor setup. However, he had growing reservations over Acclaim's long-term strategy, which favoured sticking with safe licences rather than developing new properties on new hardware. "I thought they were fucked," he explains, succinctly. "Then Spangenberg made me an offer I couldn't refuse…."

Before this starts sounding like a Mafia tale, let us explain the background. Jeff Spangenberg had sold Iguana to Acclaim and used the money to set up a huge new studio in Austin. The city already had Origin Systems, with its history of PC projects and MMO work, but this new initiative was to focus on console development. And Nintendo was on board.

"He phones me at work, saying he's heard good things about me and wants to take me for brunch," remembers Andy. "He picks me up in his Ferrari, takes me to this restaurant, and offers me loads more money than I was on to join Retro Studios."

So Andy agreed to join Jeff's gang and was soon swimming with dolphins… Dolphin being the code name for Nintendo's new console, which would eventually become the GameCube. The company began working on four projects for the machine, including an American football game, an action-adventure title, and *Car Combat,* a vehicular combat game. Andy worked on the latter, and the Stateside venture would often receive high-profile visitors from the East. "I did meet Miyamoto once, but I didn't want to say



The unreleased Saboteur was shaping up into an interesting revisiting of Durell's 8-bit hit

In the sixth form, Andy (centre) experimented with quiffs and art-rock in Just

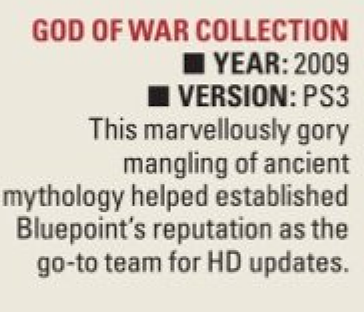
2007

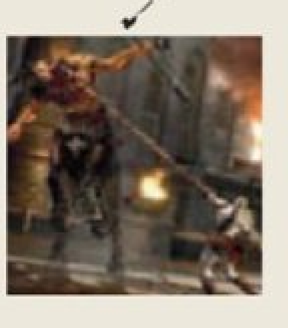
BLAST FACTOR
■ **YEAR:** 2006
■ **VERSION:** PS3
Bluepoint's first release was this cell-based twin-stick shooter, which played like a *Robotron* cameo in *Fantastic Voyage*.



2009

GOD OF WAR COLLECTION
■ **YEAR:** 2009
■ **VERSION:** PS3
This marvellously gory mangling of ancient mythology helped established Bluepoint's reputation as the go-to team for HD updates.





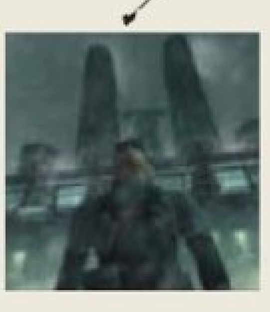
2010

ICO & SHADOW OF THE COLOSSUS
■ **YEAR:** 2011
■ **VERSION:** PS3
Andy equates updating these beauties to holding something very precious in your hands, terrified of breaking it.



2011

METAL GEAR SOLID HD COLLECTION
■ **YEAR:** 2011
■ **VERSION:** PS3/360
Giving Kojima's series an update was a mammoth but rewarding task. The pack also includes the MSX games.



Back to the bedroom

"There was no 'handshake and here's a million dollars'," chuckles Andy, when explaining how his current venture, Bluepoint, began. "We were shopping demos around the floors of game shows on a laptop. We were looking at the bank account thinking, 'How long can we live on this and what can we get done?'"

Thankfully, that early work was enough to impress George Weising and Rusty Buchet, who were in the process of setting up the PlayStation Network and were keen to sign up developers. A devkit was passed on in June 2006, and Andy and co-founder Marco Thrush successfully produced *Blast Factor* in time for the PSN launch in November. "I was working in a spare bedroom in my house," says Andy. "I had my dog with me and whenever the phone went, I was thinking, 'Oh God, I hope he doesn't bark, or they'll know I'm not working in a real office!' I had the devkit chained to my desk, so if I got burgled they couldn't nick it!"

anything in case I screwed it up, so I just showed him what I was working on," says Andy. "I don't think he got the whole *Twisted Metal* thing of *Car Combat*, to be honest. It wasn't really Nintendo at all."

The Big N was indeed concerned at the direction and uneven progress of Retro's work. It took over the company, abruptly cancelled all four projects, and rebranded the action-adventure title as a bold re-imagining of one of its much-loved properties from the NES and SNES days: *Metroid*. The pressure of a high-profile title to develop, accompanied by staff layoffs, meant this was an exciting but difficult time for Retro Studios, which wasn't helped when Jeff's flamboyant management style came into conflict with Nintendo's insistence on working to its famously exacting standards.

"Jeff could be quite an intimidating character," mutters Andy. "He was incredibly tall, like six-foot-seven, and he used to wear this really strong aftershave so you could kind of smell him coming. People would hide so he wouldn't start having a go at them, shouting, 'Can't you do better than this!' I'd be, 'Yeah, whatever…'"

Something had to give. Jeff left in a swirl of musk and Nintendo initiated a demanding work schedule, including obligatory weekend working for the last year of *Metroid Prime*'s development and a gruelling final month. "It was 9am to 9pm, seven days a week, flat out," recalls Andy with



» [Wii] The conclusion of the *Metroid Prime* trilogy appeared on the Wii and made interesting use of the console's fancy features.



» [GameCube] *Metroid Prime 2* brought a darker tone to proceedings, as well as inexplicably giving Samus breast enhancements.

O'Neil on O'Neil

Andy picks his three favourite projects to have worked on from his long career



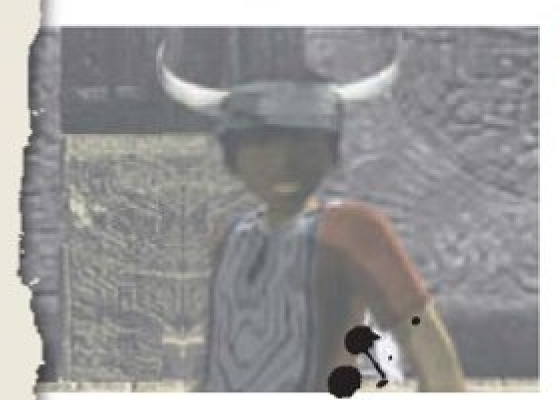
■ METROID PRIME (GAMECUBE)

The first game I worked on where we made it as good as it possibly could be. No compromise. Things just came together at the end and it became more than the sum of its parts.



■ BLAST FACTOR (PS3)

It was going back to bedroom programming. Doing it for the love of it. There were no politics or scheduling; we could just do all this stuff. It was stripping it back to basics. It was like doing the acoustic album!



■ ICO & SHADOW OF THE COLOSSUS (PS3)

What an opportunity to work on those games, those sparkling gems! They're beautiful and eternal in some ways, like looking at old movies, film noir, *The Third Man*… Sorry, I don't get to be flowery very often.





Readers' Questions

Merman: Did you play a lot of the older *Metroid* games to help shape the *Prime* incarnations?
Have you played the first *Metroid*? It's a bit of a struggle nowadays. I played it a bit.

Sel Feena: Were you already a fan of the games you helped make HD collections for, or did you become a convert while working on them?
I was a fan of *God Of War* and *Ico* – how many times have I played that? It was just so fresh. As for *Metal Gear Solid*, I'd played them a bit but not all the way through. Don't tell Konami that! But I was damn sure I played them all through before we agreed to do them! And *MGS3* is fucking awesome. I kept thinking, 'Why haven't I played this before?' I think I'd been put off stealth by *Thief*.

Hitman_HalStep: With all the complaints about coding for the PS3, how did you find making a launch game for the system?
Difficult! It was really hard but, to be fair, if you've been an Xbox or PC coder, you'd think, 'PS3, what the fuck?' And I'll tell you this: I don't like the Xbox 360. It's easy to get stuff working but, when it gets to the metal, all that gets in the way and it's like digging through jelly. In a lot of ways, it's worse than the PS3.

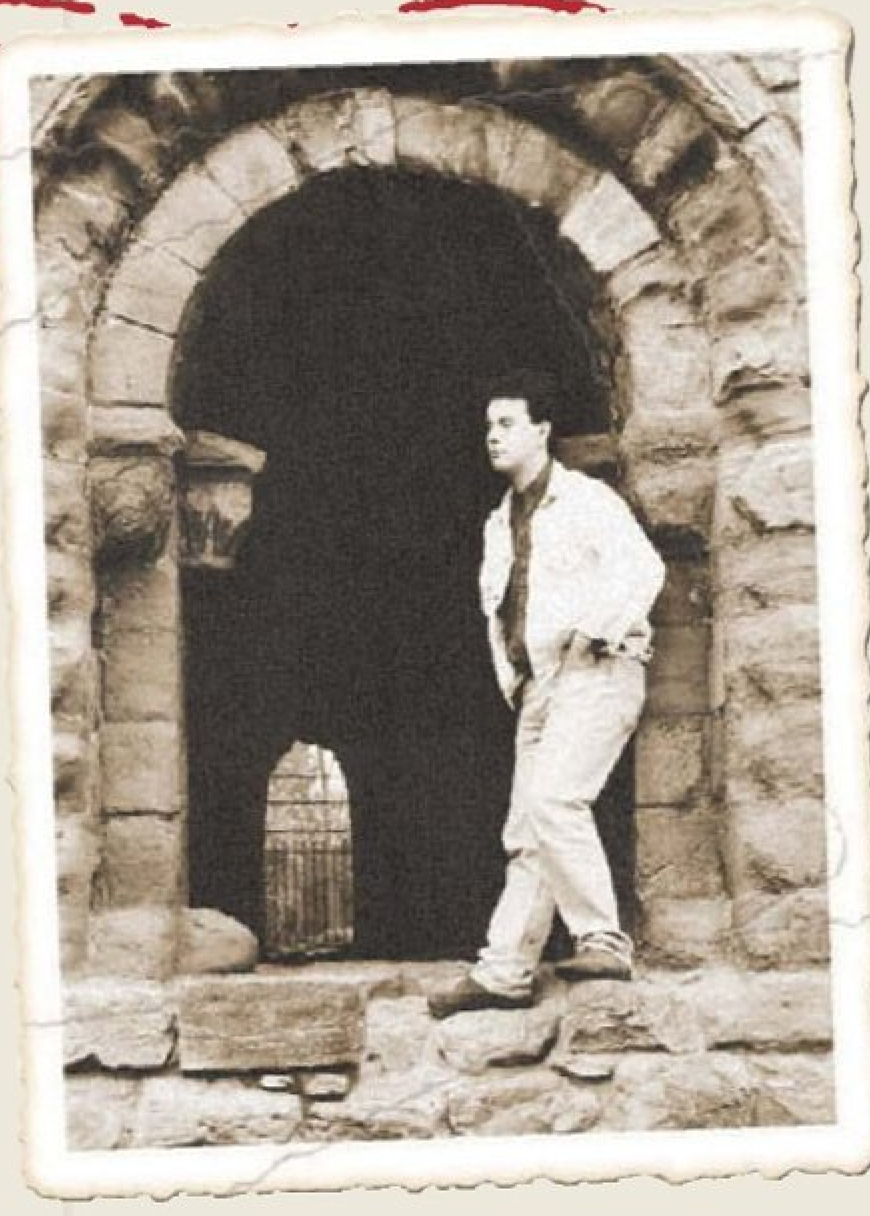
Miketendo: What was the thinking behind changing Samus's figure and face in *Metroid Prime 2*, going from a more believable, everyday woman to a pinup model?
Basically, Japan said: 'Use this model.' I'll leave it at that.

Darran: What's been your favourite system to work on?
GameCube. It did everything you told it to do and didn't complain!

Cafeman: What were your thoughts as a tech guy comparing the GameCube with the Wii?
Underneath, the Wii really is just a GameCube with stuff strapped on to make it go faster. I really wasn't sure about it.

DRS: Has Bluepoint found its niche doing HD updates?
That's a good question. We don't want to do anything that doesn't make sense. Out of the top ten PS2 games, there's not really any left to update. I mean there's *Final Fantasy*, but I think that would just kill me! We need to move on to other things… you'll be hearing stuff!

Northway: Spectrum or C64?
Speccy!



a grimace. "It was brutal, and what was scary was we really didn't know if it was going to be any good! It wasn't until we put together the demo for E3, which was pretty close to shipping, that we thought, 'Hang on, this isn't rubbish; it's awesome!' All these features, like the Morph Ball, the scanning stuff, the puzzles… They all seemed to click."

Metroid Prime clicked with gamers and critics alike. It sold well over a million copies and still features regularly in 'best game ever' lists, which led to a sequel being put into production almost immediately. However, development on *Metroid Prime 2: Echoes* did not progress as smoothly. "We had a lot of problems getting the dark and light stuff to look right," remembers Andy. "There was this black-and-white *Hellboy* video around at the time that looked awesome, but what we tried just didn't work. We were having all these technical problems and running out of memory. In game development, there's this thing called 'second syndrome'. You can rebuild something and do more stuff, but dicking about doing textures doesn't make the game any better. Sometimes less is more. It wasn't a bad game; it just didn't feel as special as the first one."

The game, released in 2004, was still well received, and by the time the third instalment was started, some fancy new technology was being waved about in Nintendo circles. When Andy first held a prototype controller for Nintendo's Revolution console, later renamed the Wii, he was far from convinced. "I thought, 'What's this crazy fucking Heath Robinson device?' We were sent a strip of plexiglass, a circuit board strapped to it and a camera on top. It was pretty alien and it's really sunny in Texas, so the thing often wouldn't work! I was really dubious at the time if anyone was going to buy it."

Trivia

On the unreleased *Car Combat*, Andy collaborated with Dave 'Zoid' Kirsch, the man behind the hugely popular and influential *Quake* mod *Threewave CTF*.

Undeterred, Andy and colleagues Steve McCrea and Mark Haigh-Hutchinson, who tragically died of cancer in 2008, put together an impressive *Metroid* demo for the 2005 Tokyo Game Show, which helped ignite interest in Nintendo's brave and innovative Wii Remote. However, his enthusiasm for yet another *Metroid* was waning and, having fulfilled



» [360] Andy's most recent project, *Metal Gear Solid HD Collection*, involved the daunting task of giving Hideo Kojima's back catalogue a polish.



» [PS3] The HD update of the majestic *Shadow Of The Colossus* and its equally brilliant predecessor, *Ico*, was handled with great care by Bluepoint.

> "When I first held a Wii controller, I thought, 'What's this crazy fucking Heath Robinson device'"
>
> *Andy soon discovered the joy of waggling*

his commitments to *Metroid Prime 3: Corruption*, he bade farewell to Retro and founded Bluepoint Games in 2006. It marked a real return to the early days of game development – a tiny team having the freedom to make the game it wanted with minimal interference. The result was the visually striking twin-stick shooter *Blast Factor*, which gave a nod to one of Andy's all-time favourite games, *Robotron*, while introducing an ingenious 'tilt' control system.

The game was delivered on time for the launch of Sony's PSN service and helped establish Bluepoint as a talented developer. Thus, after producing an expansion pack for *Blast Factor* and a few technical contracts on *Pitfall* for the Wii and *Guitar Hero* on the PC, Andy got a call from the team behind *God Of War*, asking if his studio fancied updating Kratos's first two bloodbaths for the PS3. The results impressed all involved and gave Bluepoint the confidence to bid for a similar service on one of the PS2's most precious treasures.

"I'd heard they'd been thinking of doing *Ico* and I pretty much begged to do it," laughs Andy. "It's the one to do, isn't it? Of the games people will look back on when they talk about whether games are art, that's what will be in the documentaries. Others were in the running, but I didn't want anyone else to screw it up."

True to their word, Andy's team did a splendid job on both *Ico* and *Shadow Of The Colossus*. Their latest completed project has been the *Metal Gear Solid HD Collection*, a hugely challenging but ultimately satisfying task, which established the Bluepoint boys as master polishers. Though Andy hints that the studio may be handling something other than an HD update for its next project, we wonder if he could update any game from any era, what might he opt for? "Maybe *Elite*, but they sort of did that with *Freelancer*. Could *Elite* work? It could be awesome. Hang on… *Manic Miner*! Yeah!"

Miner Willy, mutant telephones and snapping toilets in high definition? We can dream…

Thanks to Applebox Imaging for photography and Susan at Bluepoint for going the extra mile.



Andy O'Neil Desert Island Disks

The games that Andy just couldn't live without and why he loves them


01


02


03


04


05


06


07


08

01 Robotron COIN-OP
It's got to be the blue-label arcade cabinet. We had a machine at Retro Studios and I played the crap out of it. It still stands up today. Eugene Jarvis is a genius. It's actually more compelling now because it was so bloody hard and you had to keep putting money into it!

02 Tempest 2000 JAGUAR
A Jeff Minter special. I remember seeing it at my mate's shop in Dudley. Holy shit! Jeff can push the hardware, all these crazy particle effects. He took a great game and made it better, and you don't see that happen very often. Hats off to Jeff!

03 Day Of The Tentacle PC
If these are games for a desert island, this is something you could come back to after a few years. They don't make games like this any more, even though they've tried. It's funny and still feels fresh today.

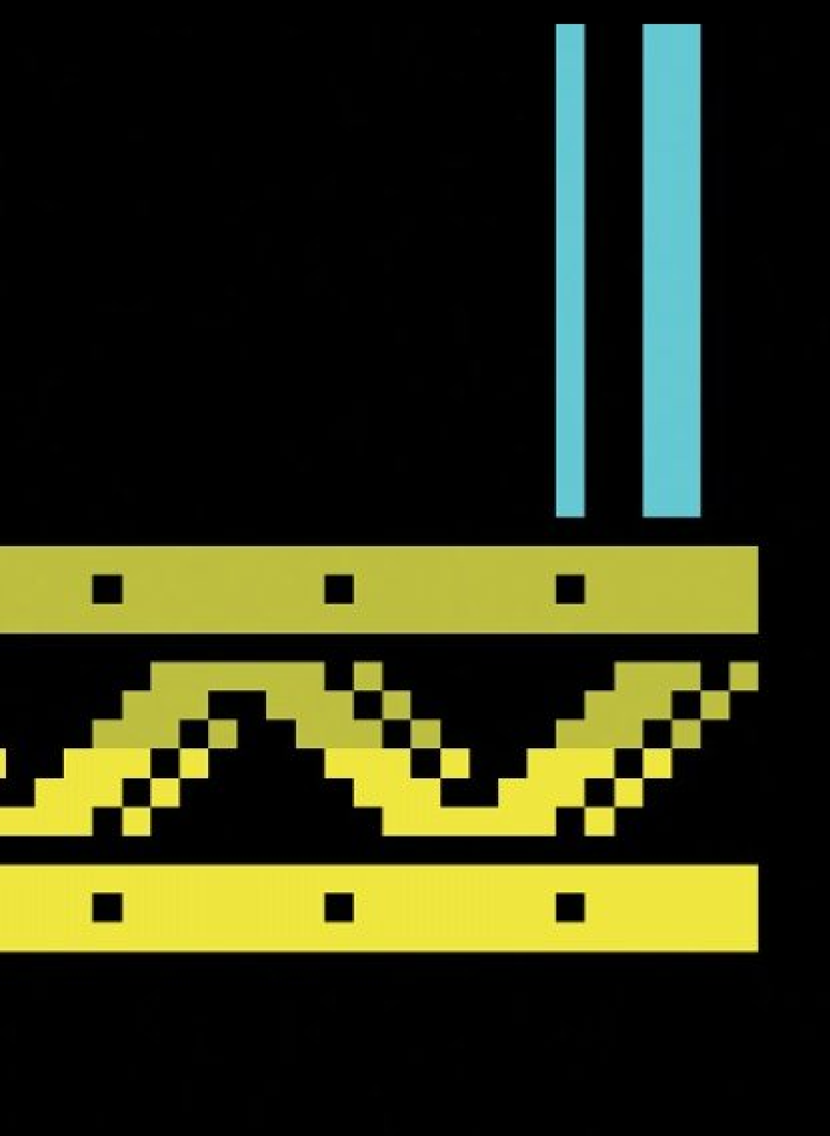
04 Demon's Souls PS3
I've finished this three times. You take a Western concept and a Japanese developer puts their own spin on it. It doesn't hold your hand and it beats the crap out of you, but it makes you want to come back for more.

05 Ninja Gaiden Black XBOX
I'm a bit of a frame rate whore, and the frame rate is awesome. The game is hard but, well, not that unfair! It's a challenge. Like, what the fuck is going on with those bosses? What planet are they on? Awesome game.

06 Rez PS2
We've all played on-rails shooters before, but this is like, holy shit! Apparently, Mizuguchi got really into the clubbing scene and decided to make a game about it. The bit at the end when the music kicks in was just awesome.

07 Picross 3D DS
Don't laugh. It's digital crack, mate. I've finished every puzzle. On long flights from the US to the UK, I start playing this and next thing I know, I've arrived. Really addictive, really hard but really accessible.

08 Super Mario 64 N64
An obvious choice, but I have to take one Nintendo game. I remember getting my N64 from HMV, and the first time Mario started moving about it was like, 'Holy shit! He's climbing a fucking tree!'



Cobra

BLAND MOVIE TIE-INS ARE A DISEASE. MEET THE CURE

» RETROREVIVAL

» OCEAN SOFTWARE
» ZX SPECTRUM
» 1986

With *Cobra*, the legendary Jonathan 'Joffa' Smith took *Green Beret* and basically injected it with videogame steroids, humour and silly, and in doing so created one of the most popular run-and-gun games to ever grace the Spectrum.

It depicts a crime-riddled world where women brandish bazookas, the police overcome thugs with headbutts to the face, fire hydrants are positioned on scaffolding, weapons are concealed inside hamburgers and ammo is measured in rubber ducks.

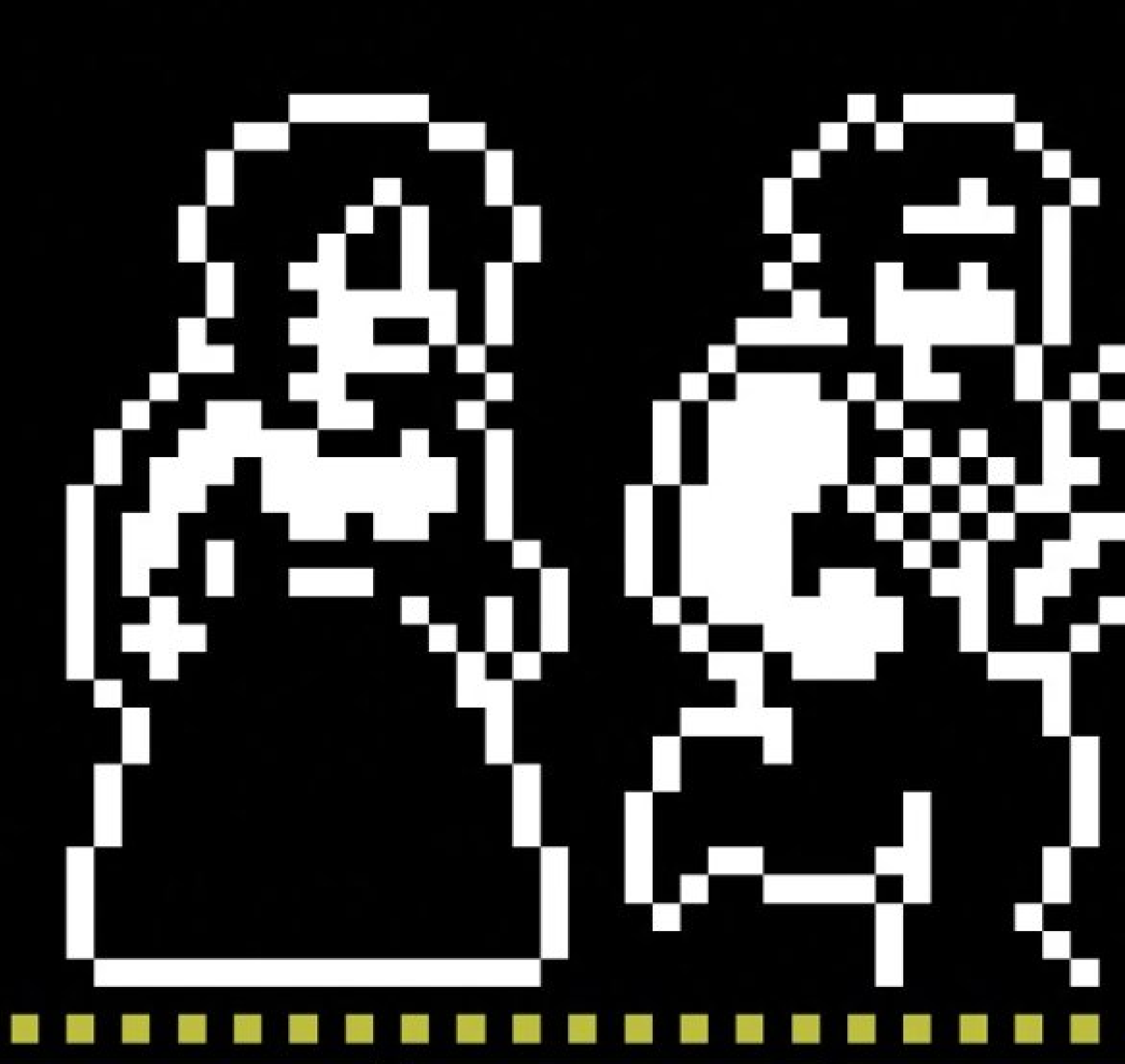
That's not to say that Smith's game adaptation was unrecognisable to fans of the movie. Our top-heavy hero looked like a convincing Stallone, with black T-shirt, shades and beefy muscles, and the action was pretty violent too, with fire being hilariously dubbed a 'murder' button, and women and prams getting walloped. You could even find Bridget Nielsen wandering its stages, who, once located, followed Marion 'Cobra' Cobretti around like a very tall lost puppy, but made up for her clingy actions by being a human shield.

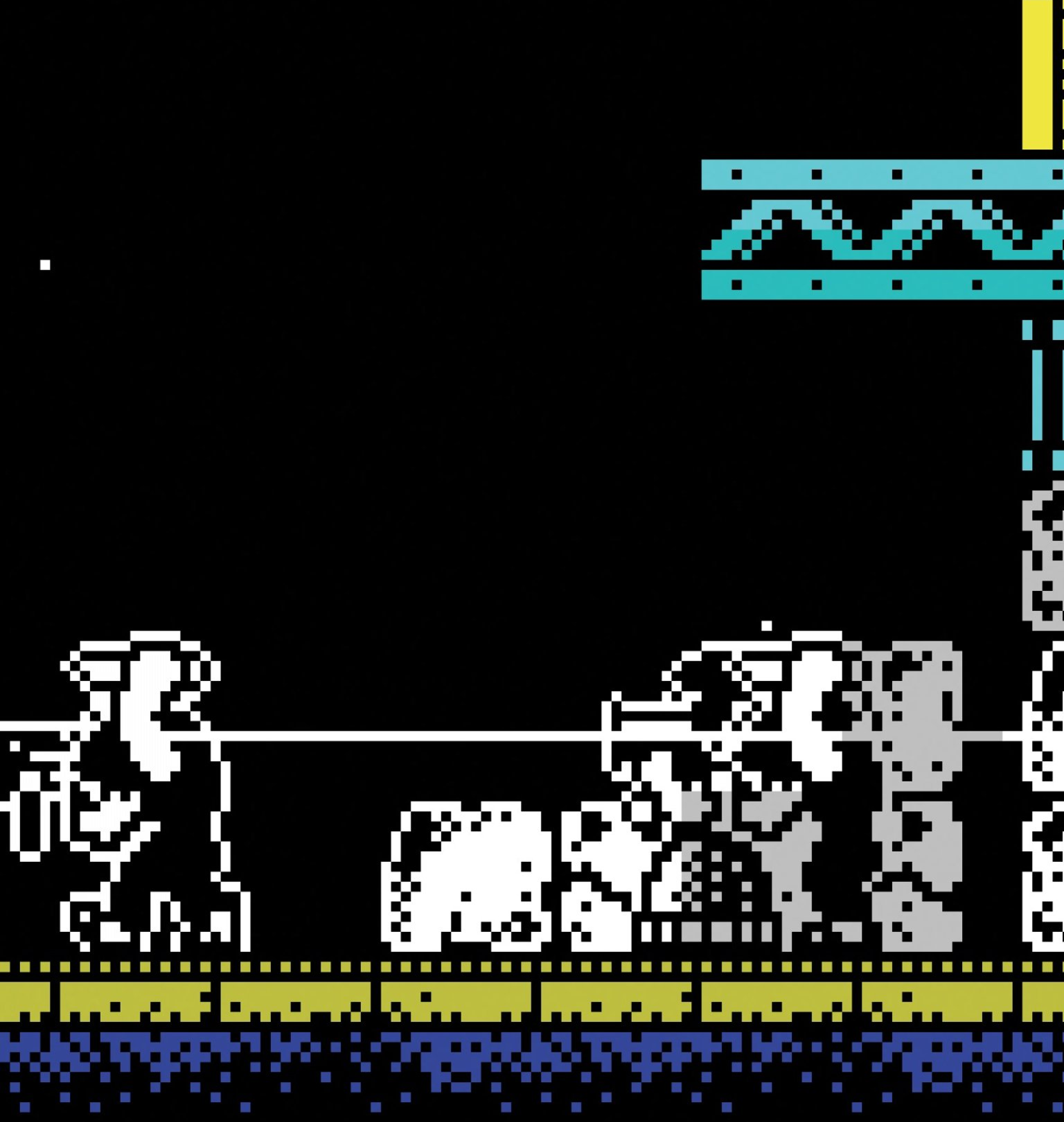
With just three levels to beat, *Cobra* was sweet but short. The opening stage takes place in the gloomy streets of Los Angeles at night. The second sees Cobretti escape to the glorious countryside, and then, mirroring the finale of the film, the case is closed with a climactic battle between Cobra and the psychotic Night Slasher inside a steel mill.

To complete each stage you must consume all the burgers and duff up the enemies using their deadly ingredients, which included a knife, a handgun, an extremely satisfying laser-sighted machine gun, and a weird magic potion that turned our hero flashy-invincible for a short time. But why stop there? Why not have a burger that transformed him into an actual cobra?

It's fair to say the Speccy version of *Cobra* paid only tongue-in-cheek reverence to the movie it was based on, but let's face it: compared to the sluggish C64 and CPC versions, it was certainly better for it. *









>> This month our main focus is Almost Human's rather brilliant dungeon-crawler, Legend Of Grimrock. We also take a look at the latest Ridge Racer release and two brand new compilations from Capcom

Legend Of Grimrock

ALMOST HUMAN GOES BACK TO RPG BASICS

INFORMATION

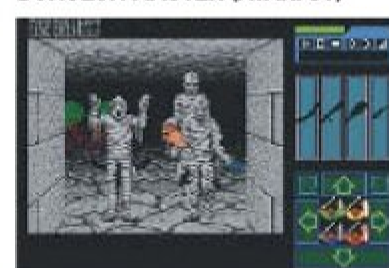
- **FEATURED SYSTEM:** PC
- **ALSO AVAILABLE ON:** N/A
- **RELEASED:** OUT NOW
- **PRICE:** $14.99 (GOG.COM), £11.99 (STEAM)
- **PUBLISHER:** ALMOST HUMAN
- **DEVELOPER:** IN-HOUSE
- **PLAYERS:** 1

BRIEF HISTORY

» *Legend Of Grimrock* is a brand new game, and as such does not have a history. It is, however, heavily influenced by the seminal *Dungeon Master*, which was released on the Atari ST in 1987. Other influences include Westwood Studios' *Eye Of The Beholder* series and *Ultima Underworld*.

WHY NOT TRY

▼ SOMETHING OLD
DUNGEON MASTER (ATARI ST)



▼ SOMETHING NEW
ORCS & ELVES (DS)





Fans of *Dungeon Master* rejoice. Almost Human's new dungeon-crawler shares so much in common with FTL Games' title that it could almost be considered a modern-day sequel.

Returning to the glory days of cut-scenes, when a beautiful static image was more than enough to set the scene, *Legend Of Grimrock* tells the story of four chained-together prisoners – a nice way of explaining the rigid party formation – who are thrown into the bowels of Mount Grimrock for crimes they may or may not have committed. They must then work together to find a way to escape the labyrinthine dungeons, while being contacted during their dreams by a mysterious individual. It's a classic conceit that works brilliantly thanks to a wonderfully intuitive interface, devious puzzles, glorious lighting effects and an amazing atmosphere that effortlessly captures the heady days of *Dungeon Master*, *Eye Of The Beholder* and every other classic dungeon-crawler that *Grimrock* pays tribute to.

After the game's dramatic opening, players get to choose from four races (human, minotaur, insectoid and lizardman) and three different classes (fighter, mage and rogue). Certain races are more suited for particular classes – the brutal minotaur excels at fighting, while insectoids make accomplished mages, for instance – but there are enough factors to create a variety of differently balanced parties. This is further amplified by *Grimrock*'s flexible skill tree. Prisoners are assigned a set number of points at the beginning of the game, and with each subsequent level they can be spent on a variety of useful skills. Each skill then grants additional bonuses once a certain level in it is reached, allowing for a huge amount of variety, even if you choose a group of fighters.

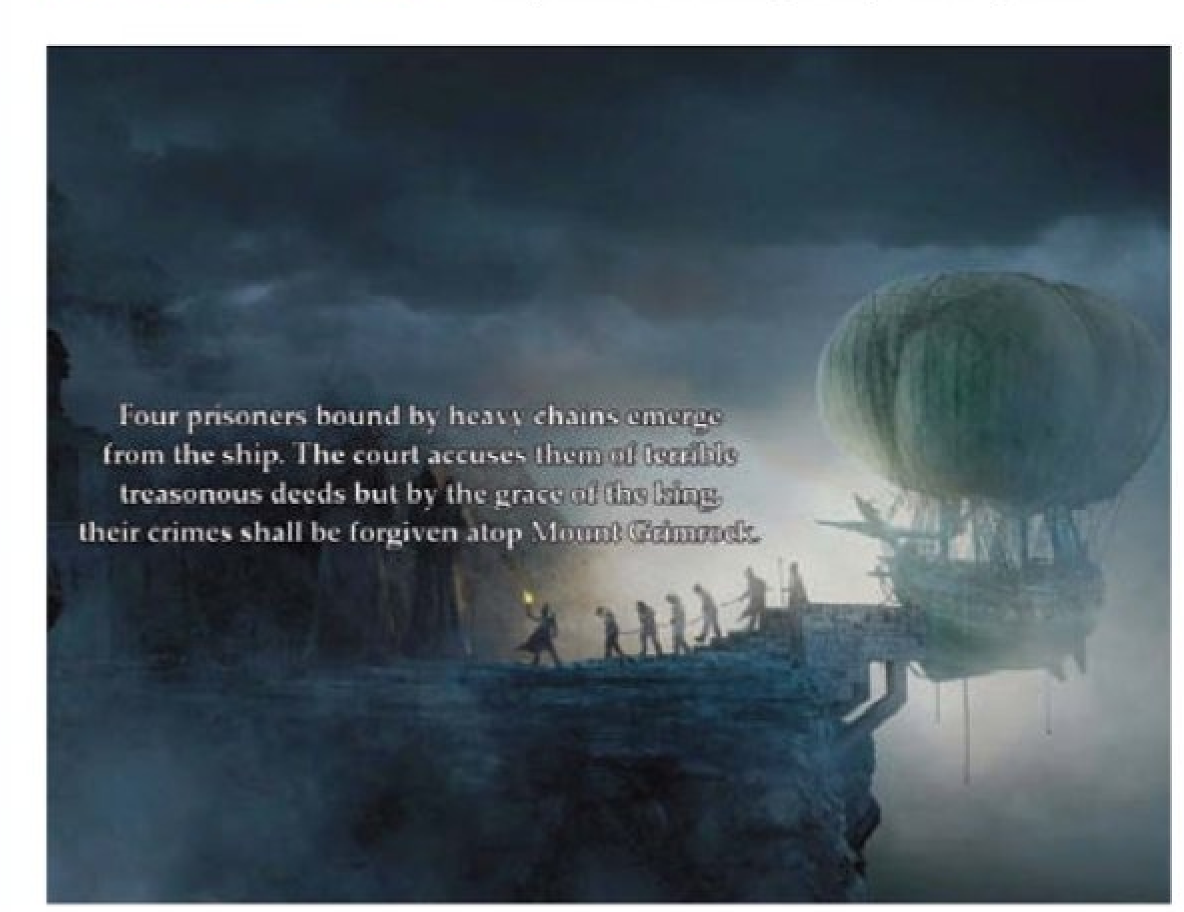
Movement is tile-based and controlled with the mouse and keyboard, but there's a true old-school option of clicking on-screen direction buttons if you are so inclined. Combat is initiated by simply right-clicking on a character's weapon to strike enemies and objects. Each weapon has a specific cooldown period before it can be used again, so simply waiting around for your opponent to react is never a good idea.

Spell combat is handled a little differently. Selecting a mage's hand opens up a grid containing a variety of glyphs. Different combinations trigger spells and expel energy, and while it encourages experimentation, you'll be unable to successfully cast certain spells until you hit a specific level. Wounded party members can be moved by simply dragging them to new locations, and certain skills and weapons allow you to attack from the





» [PC] Spiders are highly dangerous due to their poisonous bite. Make sure you have plenty of antidote when facing them.



» [PC] It's not much of a pardon when you have to fight your way through Mount Grimrock.

PICKS OF THE MONTH



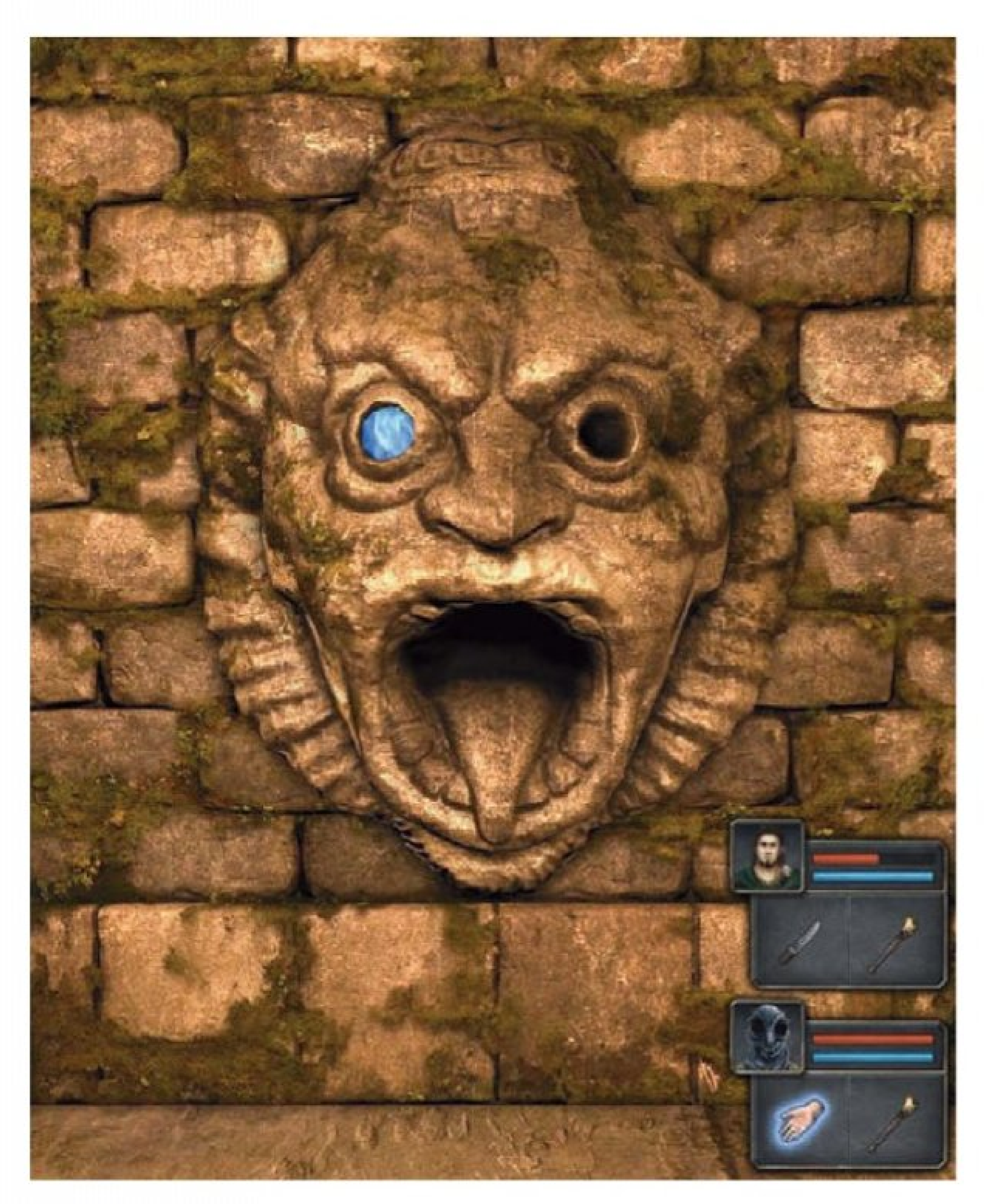
DARRAN
Legend Of Grimrock
It's just a wonderful homage to the excellent *Dungeon Master*. What more do you want?



STUART
Devil May Cry HD Collection
The ports aren't brilliant, but it's a great chance to revisit two amazing action games.



DAVID
Legend Of Grimrock
An amazing tribute to the days of old and a great game in its own right.



» [PC] The catacombs of Mount Grimrock apparently share an architect with the mansion in *Resident Evil*.



✱GO DEEPER

Legend Of Grimrock

>> If you want a true hardcore experience, you can turn off the auto-mapping feature. Better grab yourself some graph paper!

>> *Legend Of Grimrock* was primarily made by just four people, which was also the number of developers on *Dungeon Master*.

>> Almost Human has confirmed that *Legend Of Grimrock* will be heading to both Mac OS X and iOS.

» [PC] Traps can be used to your own advantage, but be careful. The fall won't necessarily kill monsters.

back ranks. It's a very user-friendly system that's a joy to use.

Most monsters display rudimentary AI on early levels, but they do become more devious the further you descend, with certain beasts requiring nimble strafing and outmanoeuvring in order to successfully defeat them. Care must be taken, though, as the narrow passageways of the dungeons mean it can be all too easy to get flanked, fall down a pit, or even catch yourself in a corner with no chance of escape. The only option you're then left with is to watch your party die a quick and painful death.

And death comes often and brutally in the caverns under Mount Grimrock. Traps are abundant, monsters can attack without warning, and some sections are incredibly unfair, ensuring many restarts until you finally conquer the area. Fortunately, a crystal save point can be found on each level, which restores all party members to life once it's touched.

While combat often rears its ugly head, the pacing of encounters is nevertheless handled well, so you're never simply bashing away at monsters. Instead, combat is interspersed with well thought out puzzles, ensuring that your brain gets as much of a challenge as your clicking finger. This is most notable with the huge iron doors that can be found on each level of the dungeon. Early doors can be opened with little more than a keen eye, but puzzles get far more cryptic on the later stages, requiring head-scratching but promising eventual jubilation once you solve them.

The other strength of *Grimrock* is the sheer amount of enjoyment you get from simply exploring its huge levels. Graphically it's extremely impressive, with an insane amount of detail crammed into the dungeon walls. Monsters look suitably imposing, if a little stilted on the animation front, while the lighting effects are superb, creating an oppressive, moody atmosphere that really accentuates your desperate situations. Superb sound design also adds to the atmosphere, and you'll soon shudder whenever you hear the telltale skittering of nearby spiders.

If you're looking for originality, *Legend Of Grimrock* will leave you disappointed. If, however, you're looking for a riveting adventure that pays tribute to some of the best the genre has ever offered, you won't want to miss out.

In a nutshell

Beautifully crafted and a fitting tribute to a long-forgotten genre, *Legend Of Grimrock* is perfect proof that games don't require huge budgets in order to suck you into them.



>> **Score 92%**



Dungeoneering 101

MOUNT GRIMROCK IS a dangerous place, so you'll need to know numerous tricks in order to survive. The most obvious is to ensure that your party members are tooled up with the best weapons and equipment. Food and torches are also important, as you'll stop regaining health when resting if you're hungry and will find it harder to see with low or no lighting. The dungeon itself is rife with strange herbs, which can be combined with empty vials to create useful potions if you can find the mortar and pestle first. Finally – and this last point can't be stressed enough – whenever you hear a spider nearby, run like the wind.

OPINION



Legend Of Grimrock is an excellent tribute to a classic genre that most gamers seem to have forgotten. While it lacks originality, its pacing, selection of monsters and devious puzzles make it an excellent game in its own right. Oozing atmosphere and with plenty of neat surprises – you'll never forget your first earthquake – it's an important new addition to a lost genre.

Stuart Hunt

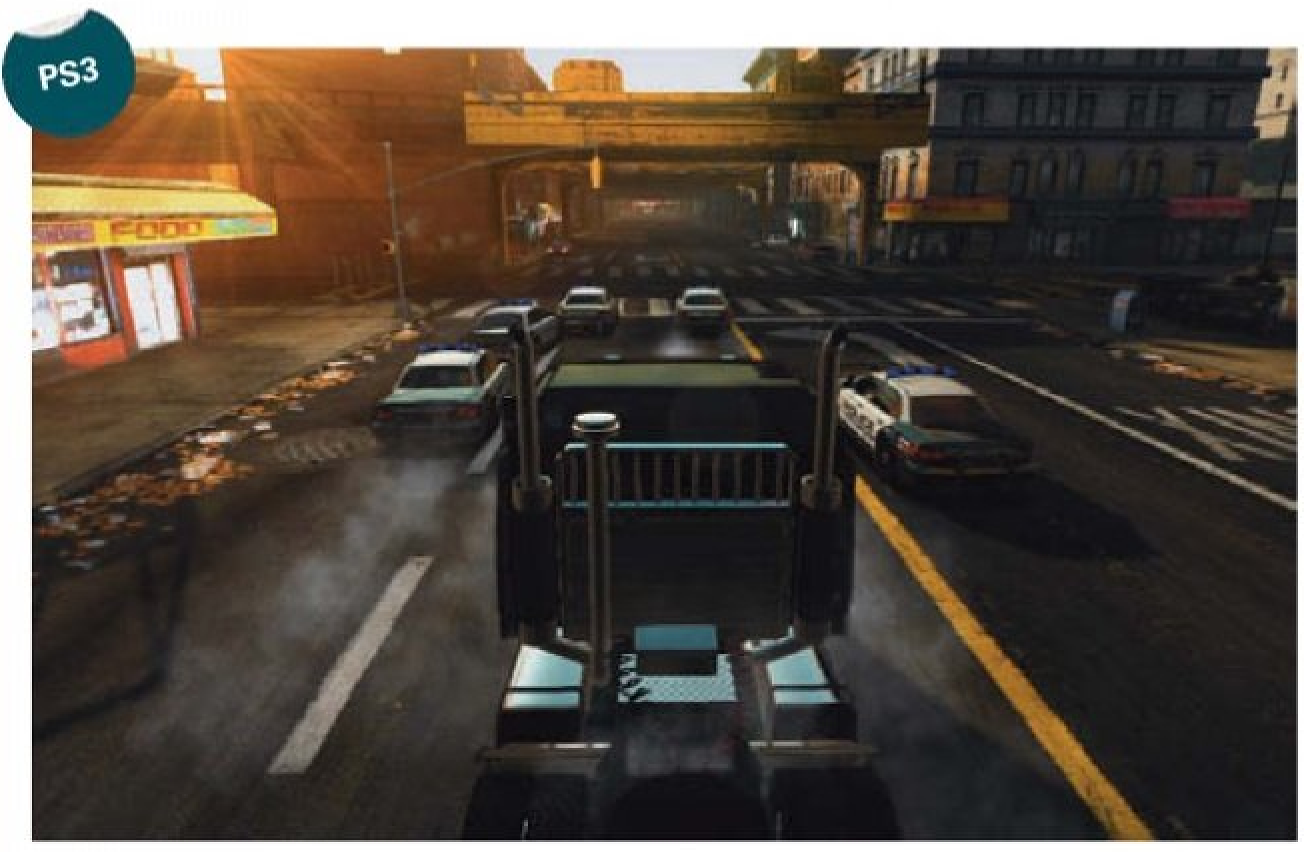
» [PC] While we'd like the opportunity to play as new classes and races in the future, there's plenty to keep you busy.



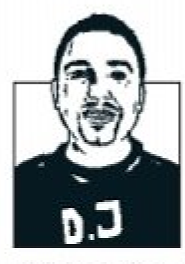
Ridge Racer Unbounded

RIDGE RACER FOR THE BURNOUT GENERATION

» **FEATURED SYSTEM:** PS3 » **ALSO AVAILABLE ON:** XBOX 360, PC » **RELEASED:** OUT NOW
» **PRICE:** £49.99 » **PUBLISHER:** NAMCO » **DEVELOPER:** BUGBEAR » **PLAYERS:** 1 (1-8 ONLINE)



» [PS3] Smashing up police cars while controlling a huge truck never gets old.



***Ridge Racer Unbounded* is a difficult game to love. It has little in common with the *Ridge Racer* franchise, generic city locations and an insanely steep difficulty curve that will have many swearing in frustration after several failed races.**

This is primarily down to *Unbounded*'s unconventional drift mechanic, which requires you to hold the drift button – yes, drift button – down while taking corners, instead of the handbrake system that virtually every other arcade racer uses. It's a nightmare to get your head around, and you'll find yourself slamming into walls while the ferocious AI of the other cars constantly punishes you. Master it, however, and *Unbounded* becomes a far better game.

Constant use of your drift button, high-flying jumps and slipstreaming increases your power bar. Once full,



you'll be granted a huge boost to your speed that lets you demolish rival cars and break through walls and buildings, providing critical short cuts. It makes for incredibly exhilarating play, with races almost always coming down to the wire due to that previously mentioned unflinching difficulty level.

Finishing races earns experience points, and levelling up grants you new cars, additional districts to race in and handy blocks for the excellent level editor that has been included. There are a good variety of events as well, ranging from standard races to time attacks and the insanely fun Behemoth event that has you wrecking police cars while controlling a lorry.

Many will no doubt be put off *Unbounded* due to its lack of hand-holding, seemingly unfair AI, and bland level design. Put the time in, however, and you'll be rewarded with a refreshing addition to what is becoming a very crowded genre.

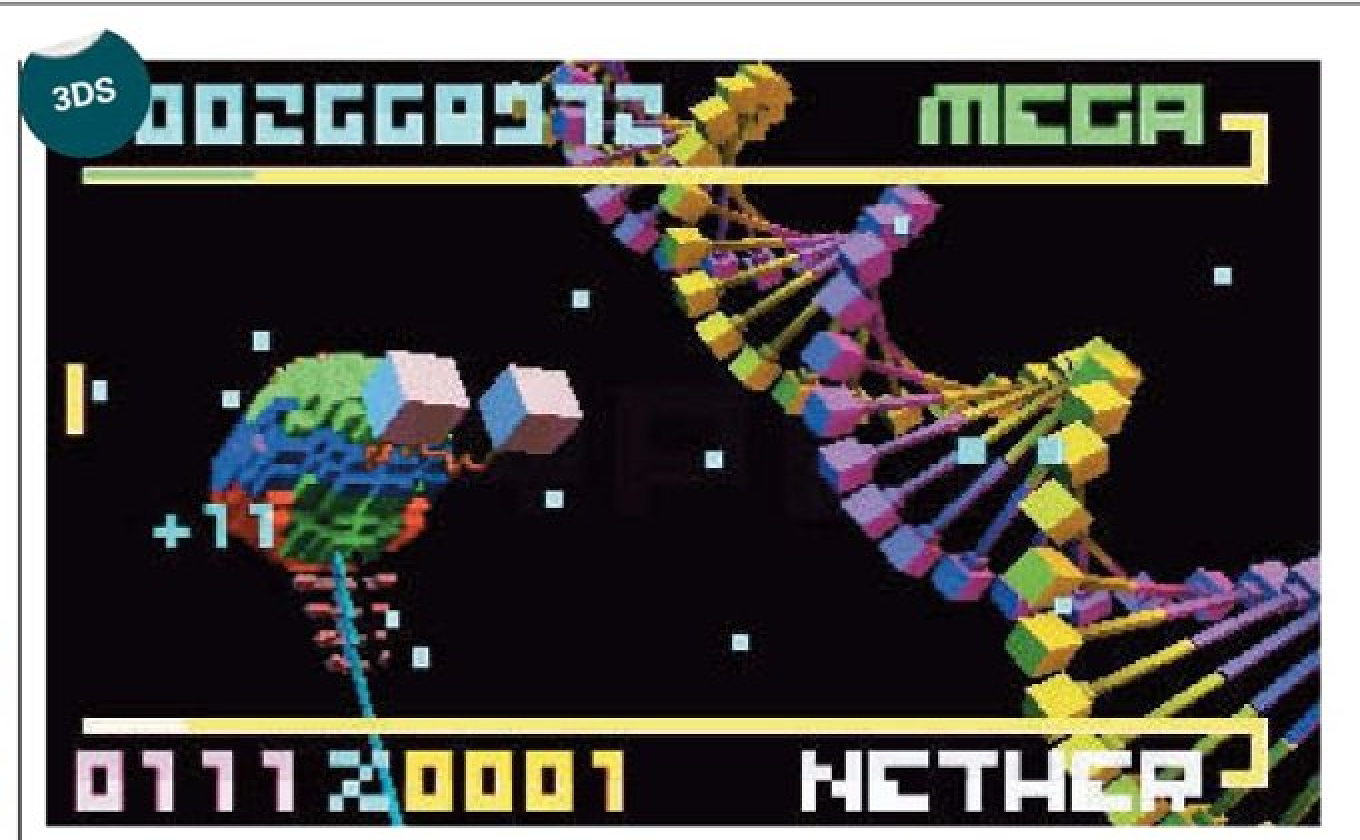
OPINION



I'm not a huge fan of this, and not just because it has little to do with *Ridge Racer*. The drift mechanics are overly tricky, it's too tough for its own good, and the use of a city makes for some bland locations. The level editor is very good, though, making for fun games when taken online.

Stuart Hunt

>> Score **76%**

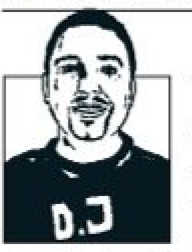


» [3DS] *Bit. Trip Beat* is a brilliant, musical twist on Atari's *Pong*, just with more colours and less bats.

Bit.Trip Saga

GREAT GAMES, OKAY PORT

» **FEATURED SYSTEM:** 3DS » **ALSO AVAILABLE ON:** WII » **RELEASED:** OUT NOW » **PRICE:** £39.99
» **PUBLISHER:** RISING STAR GAMES » **DEVELOPER:** GAIJIN GAMES » **PLAYERS:** 1-4



The *Bit.Trip* games have become essential purchases on Nintendo's WiiWare service thanks to their distinctive retro visuals, stunning soundtracks and addictive gameplay. All six games have now been bundled together in one package for the 3DS and Wii in order to create an essential selection of games that is only let down by a few annoying niggles.

Bit.Trip Fate is an interesting twist on the shoot-'em-up genre and has you attached to a rail while fending off numerous enemies. *Bit.Trip Beat* is a slick *Pong* variant that tasks you with repelling incoming balls with your bat. *Bit.Trip Flux* is similar to *Beat* but places the paddle on the right side of the screen and caters for up to four players instead of *Beat*'s two.

Bit.Trip Void's objective is to absorb black dots while avoiding white ones, which is made doubly hard by the fact that you grow in size with each consumed dot, while *Bit.Trip Core* is a



rather limp rhythm-action game that is all style and no substance. The best game by far is the excellent *Bit.Trip Runner*, a superb running game that boasts a fast and furious pace and a *Pitfall!*-inspired bonus round.

One of the most disappointing aspects of *Bit.Trip Saga* is how the 3D has been implemented into it for the handheld version. While it works extremely well, giving all the 2D games an impressive sense of depth, it's often done at the expense of the frame rate, which really judders on games like *Runner*, where timing is important. Frustratingly, these fluctuations are absent from both the Wii version and whenever the games are played in 2D, making the 3D a rather pointless addition that can often hinder gameplay on the higher levels. The lack of online leaderboards for score-based games is also irksome, while the wild difficulty spikes found in *Runner* and *Fate* can be more than a little frustrating. Even with these issues, though, the sheer addictive nature of the games makes it hard to put down.

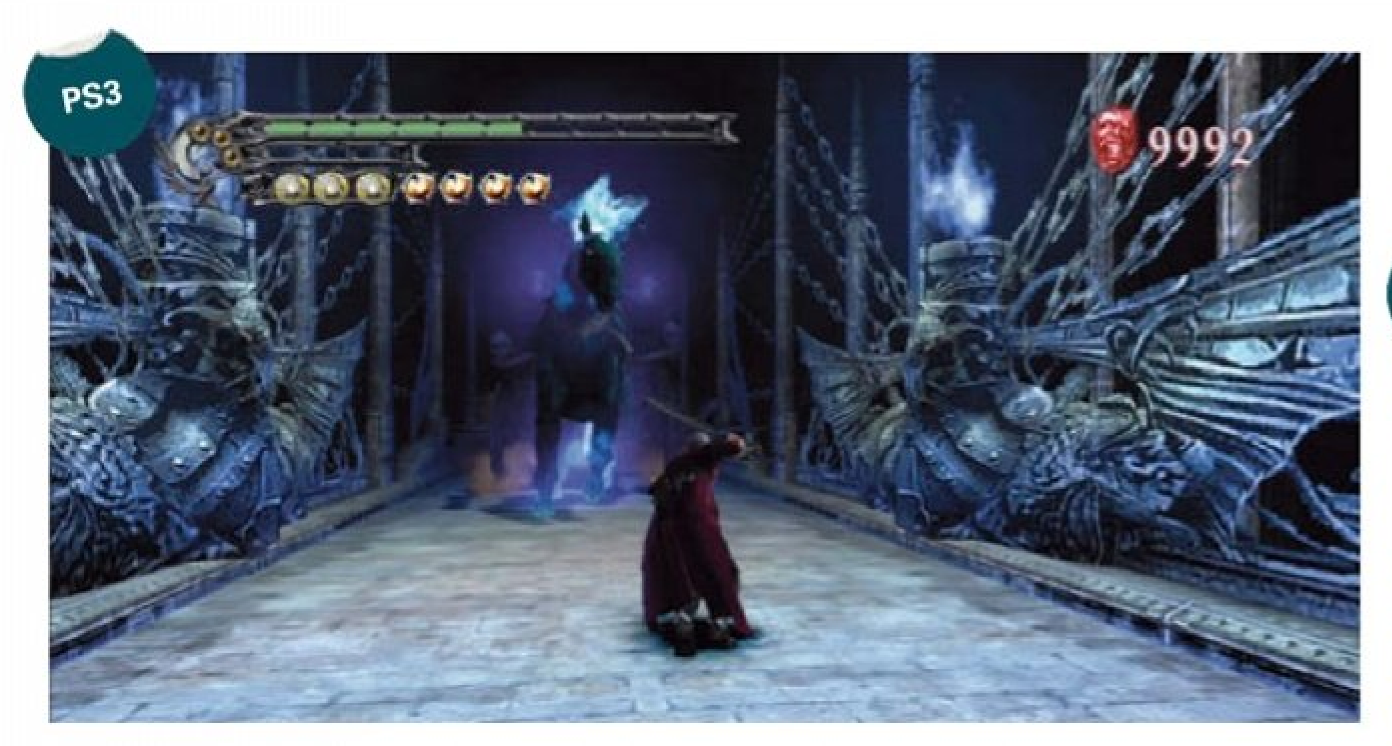
OPINION



While the port could be better, there's no denying the quality of the actual games. *Bit.Trip Core* is really the only weak link, but even that is decent rather than outright terrible. The games in here are perfectly suited for playing on the go, and while *Runner* is frustrating at times, it always manages to pull you back for one more go. Just like the other games on this charming little compilation.

Stuart Hunt

>> Score **83%**



Devil May Cry HD Collection

» **FEATURED SYSTEM:** PS3 » **ALSO AVAILABLE ON:** XBOX 360 » **RELEASED:** OUT NOW » **PRICE:** £29.99
» **PUBLISHER:** CAPCOM » **DEVELOPER:** PIPEWORKS SOFTWARE » **PLAYERS:** 1

>> **We're frustrated with** this latest HD collection. Two more classic games – *Devil May Cry 2* is here but remains a huge disappointment – have been saddled with another lazy port. It's certainly better than Konami's recent *Silent Hill* makeover, but Pipeworks' conversion still suffers from shifting aspect ratios, washed-out textures and occasionally grainy cut-scenes that look rather amateurish next to the achievements of Bluepoint Games in similar collections. On the other hand, PAL players finally get to experience the original in all its silky smooth glory, while Dante's third adventure is a stunning outing, which is hardly surprising, as it's only seven years old. Like the *Silent Hill HD Collection*, it's a great entry point if you've never played this enjoyable franchise before, but it's hard to justify if you already own the originals.

>> Score **79%**

Capcom Digital Collection

» **FEATURED SYSTEM:** XBOX 360 » **ALSO AVAILABLE ON:** N/A » **RELEASED:** OUT NOW » **PRICE:** £24.99
» **PUBLISHER:** CAPCOM » **DEVELOPER:** VARIOUS » **PLAYERS:** 1-4



>> **Capcom's latest compilation** features eight of its digital releases: *Super Street Fighter II Turbo HD Remix, Final Fight: Double Impact, Super Puzzle Fighter II Turbo HD Remix, Flock!, Bionic Commando Rearmed 2, Rocketmen: Axis Of Evil, Wolf Of The Battlefield: Commando 3* and *1942: Joint Strike*. Unfortunately, many of the included games are average at best, with only *Street Fighter*, *Puzzle Fighter* and *Final Fight* being true gems.

The pack indisputably represents good value for money when compared to the individual prices, but it still feels like a hollow representation of Capcom's actual digital catalogue. It's worth a flutter if you're lacking the likes of *Street Fighter* and *Final Fight*, but otherwise you may be better off simply cherry-picking the best games from Xbox Live Arcade instead.

>> Score **68%**



Sine Mora

» **SYSTEM:** XBOX LIVE ARCADE » **ALSO ON:** N/A
» **PRICE:** 1,200 POINTS (£10.60) » **PLAYERS:** 1

>> **Get over *Sine Mora*'s** sumptuous visuals and you'll discover an enjoyable but conventional shooter. The key mechanic – shooting enemies boosts your dwindling timer – is a lovely touch, but it's let down by several shmup no-nos, including hard-to-see bullets, random power-ups and questionable enemy placement. Arcade mode is also disappointing due to a strict timer, which causes an insane difficulty spike after the easier story mode. It's fun, but a few rookie mistakes mean the gameplay never matches the stunning visuals.

>> Score **74%**

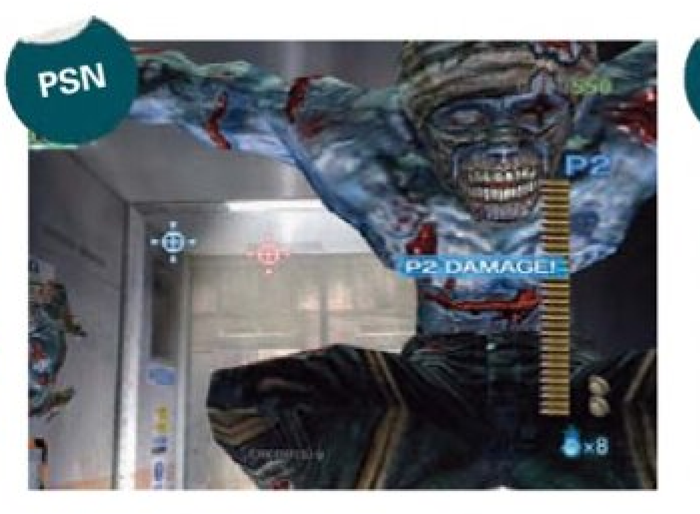


Wrecked: Revenge Revisited

» **SYSTEM:** PS3 » **ALSO ON:** XBOX 360, PC
» **PRICE:** £9.99 » **PLAYERS:** 1-4

>> **Coming from the** creators of *Mashed* and *Micro Machines V4*, *Wrecked* has a lot to live up to. Sadly, it falters in several areas. Its boost system is far too fiddly, the track design and missions are bland in the extreme, and the constantly moving camera gets very annoying, very quickly. It claws back a little respect when playing offline with friends, but it fails to create the same spark online. This is a real disappointment considering the heritage.

>> Score **46%**

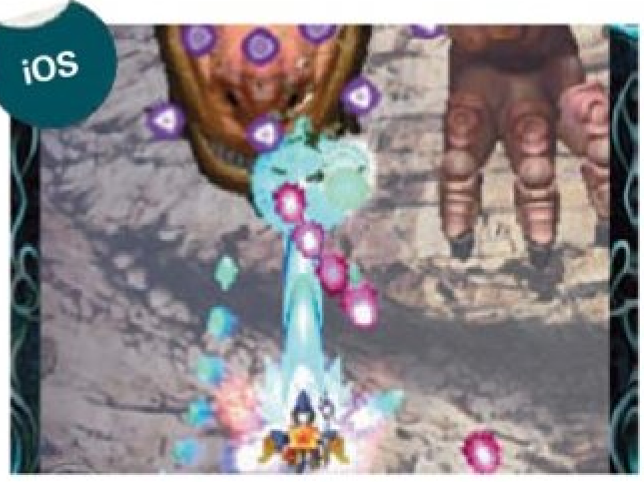


The House Of The Dead 4

» **SYSTEM:** PSN » **ALSO ON:** N/A
» **PRICE:** £6.49 » **PLAYERS:** 1-2

>> **It has taken** Sega seven long years to bring the fourth instalment of its popular lightgun series to a home system. The wait has been worth it, though, with *The House Of The Dead 4* offering the two additional bonus stages from the arcade special edition. It lacks the dramatic boss encounters of *HOTD2*, and there aren't as many gameplay modes as we'd like to see in a home release, but this is an undeniably fun blaster for its paltry asking price.

>> Score **70%**



Bug Princess 2

» **SYSTEM:** iOS » **ALSO ON:** XBOX 360
» **PRICE:** £4.99 » **PLAYERS:** 1

>> **Ignore the slightly** dull name, because this is a fantastic port of *Mushihime-sama Futari*. Cave has proven to be extremely talented at translating its arcade games over to iOS so far, and *Bug Princess 2* is no exception. The touch controls are superb, and it boasts challenging attack patterns and enemies, over-the-top bosses, and a suitably deep scoring system. It doesn't include all the versions found on the 360 game, but this is still an excellent little blaster and perfectly suited for handheld play.

>> Score **86%**

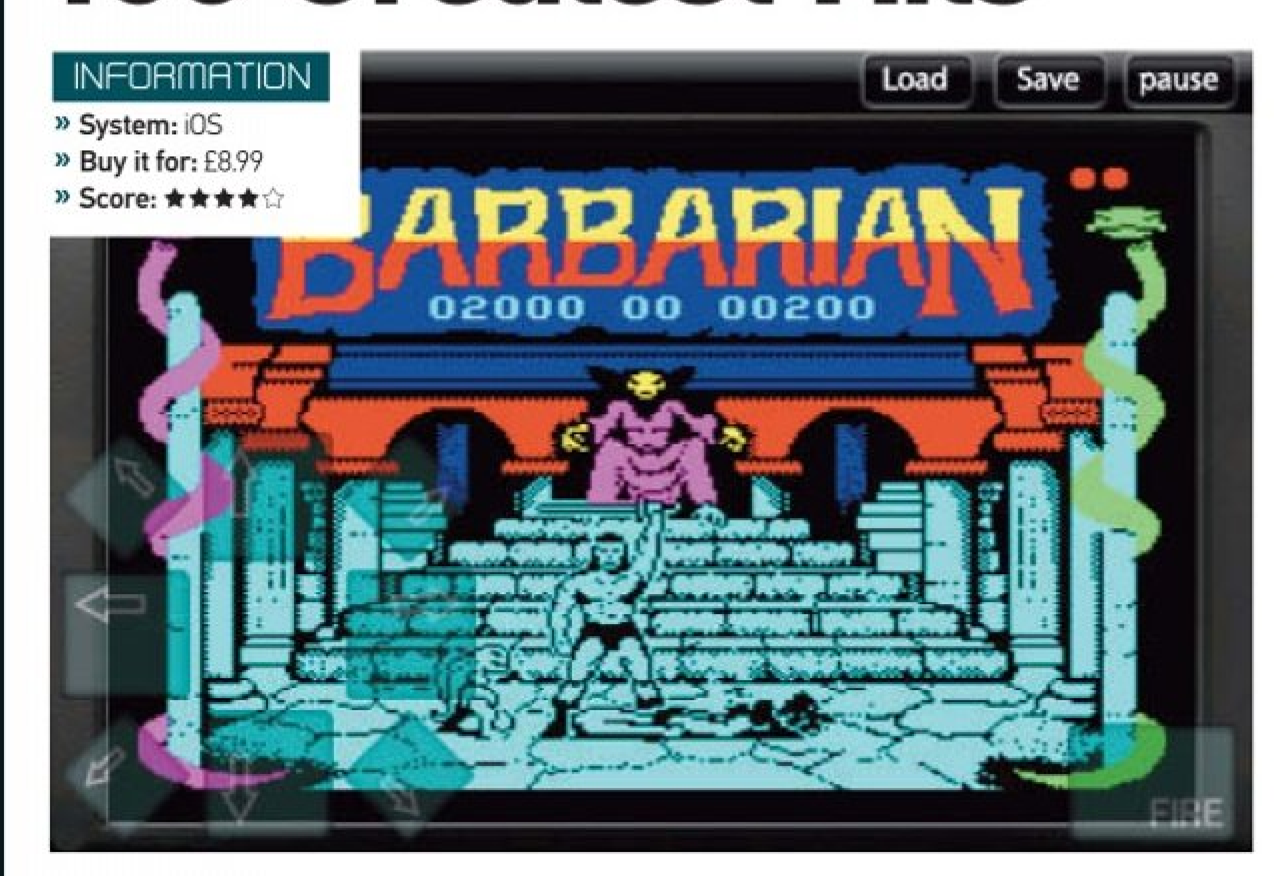
RETROROUND-UP

>> Every month we take a look at the latest classics that have been re-released for a new generation of gamers

DOWNLOAD OF THE MONTH

100 Greatest Hits

INFORMATION
» System: iOS
» Buy it for: £8.99
» Score: ★★★★☆



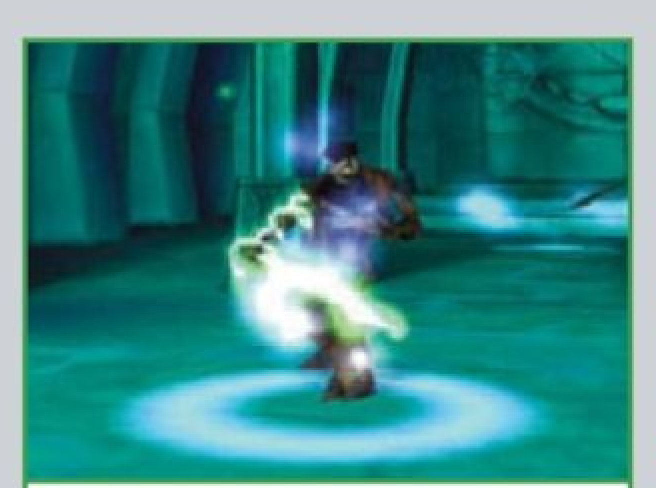
Since it first started releasing games for its Spectrum emulator, Elite has now racked up an impressive number of titles. To celebrate the Spectrum's 30th anniversary, it has released this impressive compilation for iPad and iPhone owners.

While it's initially free to download and comes with a copy of the popular platformer *Bruce Lee*, it costs a total of £8.99 to unlock the other 99 games, with the option to unlock them in batches of four to five games for £1.49. This price may sound high, but you're getting an incredible amount of gameplay for your money, with many of the titles on offer here being genuine classics.

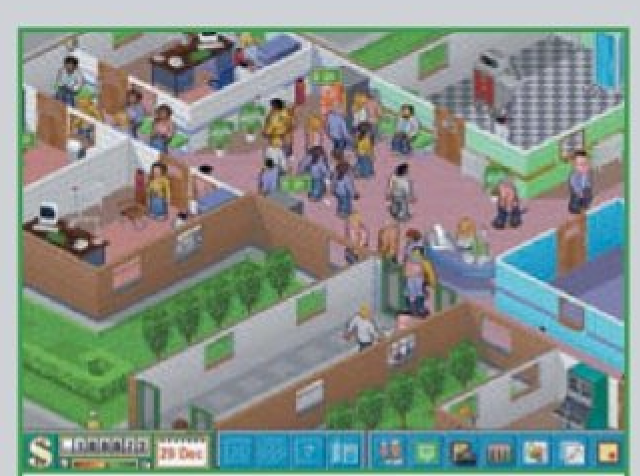
Indeed, Elite has really gone out of its way to secure all manner of fantastic games, and while certain omissions hurt – no contributions from Ultimate or Codemasters, for example – there are still an impressive number of games to choose from. *Cybernoid*, *Barbarian*, *Manic Miner*, *Deflektor*, *Everyone's A Wally*, *Jack The Nipper*, *Laser Squad*, the *Monty Mole* series… The list goes on and on, and all the emulation is nearly flawless.

The games admittedly fall down on the control front – our advice is to use an iCade if possible – but they do seem better suited to the iPad, where your fingers don't end up obscuring most of the screen. The only real downside to the *100 Greatest Hits* collection is the aforementioned absent publishers, as well as a few weird omissions like Elite's very own *Bomb Jack*, and the lack of any proper two-player support. It remains an excellent compilation, though, for anyone who loved Sir Clive's 8-bit micro.

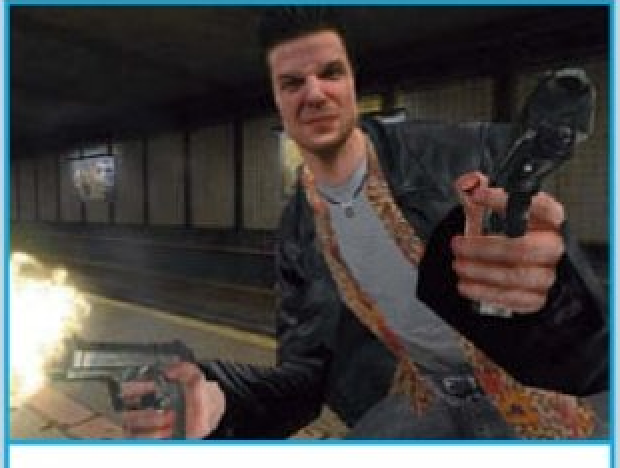
>> OTHER HIGHLIGHTS



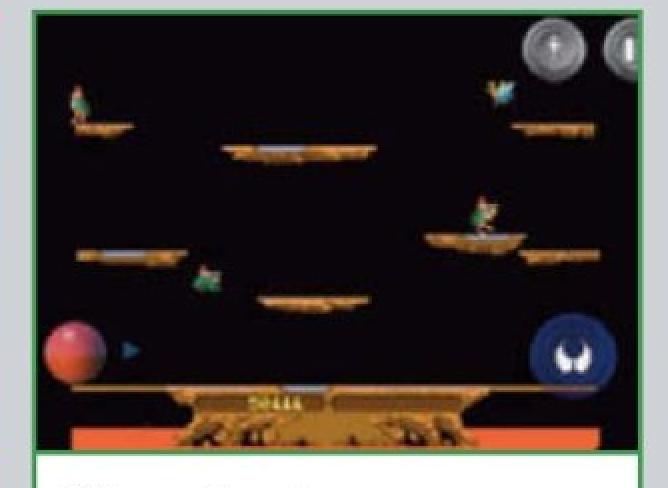
Legacy Of Kain: Soul Reaver
» **Buy it from:** www.gog.com
» **Buy it for:** $5.99
» **Score:** ★★★★☆
» With rumours growing that Crystal Dynamics might be returning to the franchise, we've decided to revisit the first outing of Raziel. *Soul Reaver*'s visuals have certainly aged, but the core gameplay is highly enjoyable, thanks to some clever puzzles, well-paced combat and the ability to flip between two distinct worlds. Raziel picks up a number of special abilities as the game progresses, while the story is rich and features some excellent voice acting.



Theme Hospital
» **Buy it from:** www.gog.com
» **Buy it for:** $5.99
» **Score:** ★★★★☆
» Bullfrog took its template for *Theme Park* and applied it to running a hospital. The end result is a suitably hilarious game where you try to cure a number of amusing ailments ranging from Bloaty Head to Heaped Piles and even the Squits. While it's easily accessible, like *Theme Park* before it there is plenty of depth, and as your hospital grows in size you'll have a nightmare on your hands as you juggle staff, research new cures and buy better equipment.



Max Payne
» **System:** PSN
» **Buy it for:** £7.99
» **Score:** ★★★☆☆
» Rockstar has released *Max Payne 1* and *2* on PSN to tie in with the release of *Max Payne 3*. While the PS2 version was the weakest outing for the popular PC game, it nevertheless remains great fun. Bullet time never gets boring, while the noir-themed story drips with atmosphere. The long loading times continue to frustrate, and it lacks the graphical pizzazz of the original, but this is a perfect time-waster while you're waiting for Max's latest adventure.



Midway Arcade
» **System:** iOS
» **Buy it for:** £0.69
» **Score:** ★★★☆☆
» Realising that it's sitting on a gold mine, Midway has started releasing classic coin-ops on iOS. 69 shiny pennies get you access to *Rampage*, *Spy Hunter*, *Joust*, *Defender*, *Arch Rivals* and *Root Beer Tapper*, as well as games like air hockey and pool. Additional packs of three are available for a further 69p and include the likes of *Gauntlet* and *Total Carnage*. While the emulation is good, the controls make most of the games a chore if you don't have an iCade.

VIRTUAL CONSOLE

It's been another sluggish month for the Virtual Console, so we've instead decided to cover the latest 3D Classics titles.

Kid Icarus
» **System:** NES
» **Buy it for:** £5.40
» **Score:** ★★★★★

TwinBee
» **System:** NES
» **Buy it for:** £4.40
» **Score:** ★★★★☆

Kirby's Adventure
» **System:** NES
» **Buy it for:** £5.40
» **Score:** ★★★☆☆

Urban Champion
» **System:** NES
» **Buy it for:** £4.50
» **Score:** ★☆☆☆☆

PSN

The digital lull continues on Sony's online service, and despite a large number of PS2 releases, there is little of actual quality.

Eternal Quest
» **System:** PS2
» **Buy it for:** £2.99
» **Score:** ★★★☆☆

Stuntman: Ignition
» **System:** PS3
» **Buy it for:** £7.99
» **Score:** ★☆☆☆☆

Buzz Lightyear Of Star Command
» **System:** PSone
» **Buy it for:** £3.99
» **Score:** ★★☆☆☆

Red Faction
» **System:** PS2
» **Buy it for:** £7.99
» **Score:** ★★★☆☆

PC SERVICES

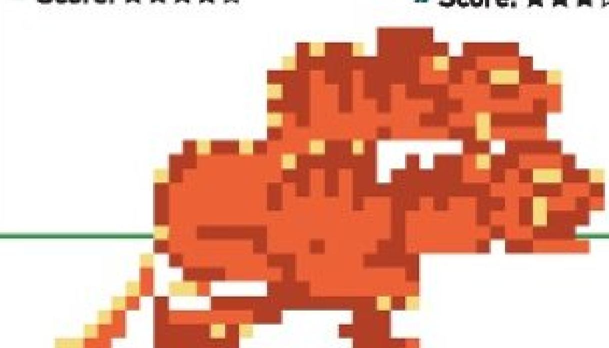
The online retro services keep up the stream of classic games updated to work on modern PCs.

Ultima 8: Gold Edition
» **Buy it for:** $5.99
» **Buy it from:** www.gog.com
» **Score:** ★★★★☆

Populous: The Beginning
» **Buy it for:** $5.99
» **Buy it from:** www.gog.com
» **Score:** ★★★★☆

Stonekeep
» **Buy it for:** €5.99
» **Buy it from:** www.dotemu.com
» **Score:** ★★★★☆

The 11th Hour
» **Buy it for:** €7.99
» **Buy it from:** www.dotemu.com
» **Score:** ★★★☆☆



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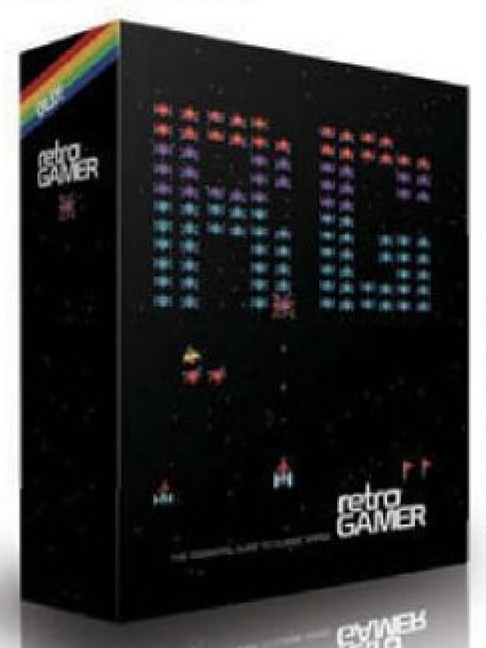
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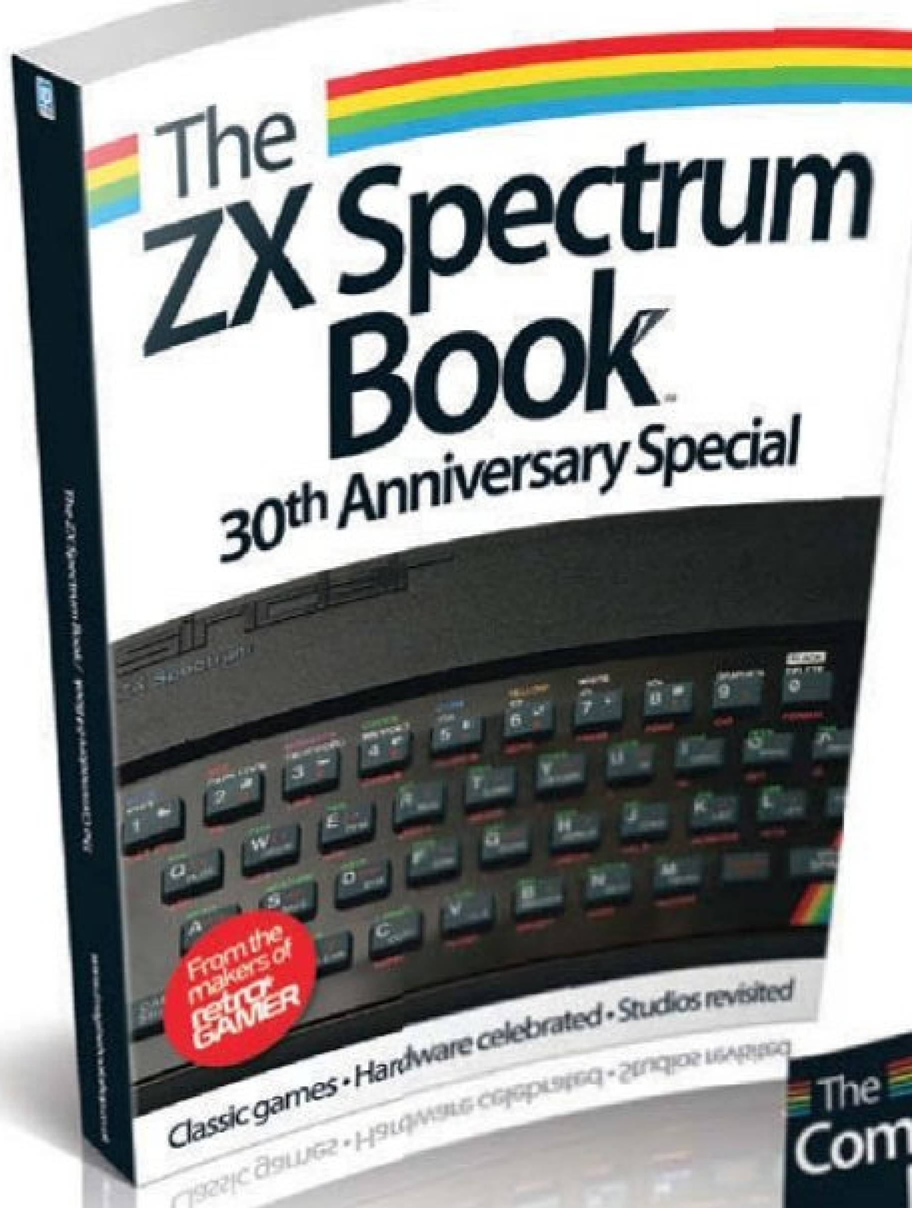
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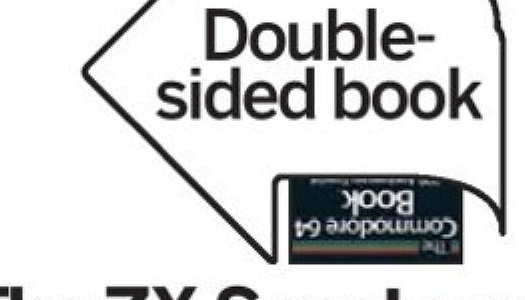
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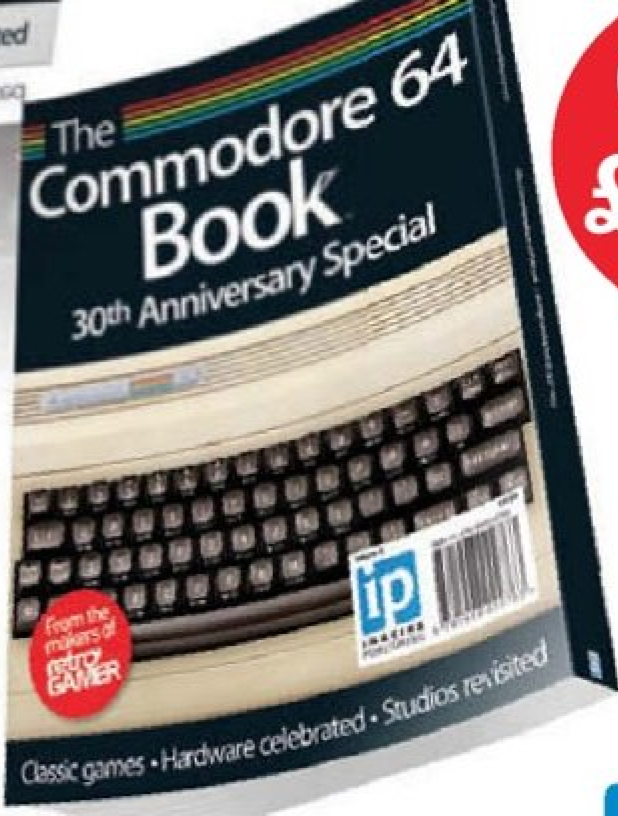




The ZX Spectrum / Commodore 64 Book

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HOMEBREW

>> The scene's latest news and reviews

J.K

I've been pondering about age a little recently and realised that I've been writing this bit of Retro Gamer for about four years now. They say time flies when you're having fun, but suddenly realising how much fun you've had is scary! And 30 years ago I was given my first 8-bit, the VIC-20, on which I first learnt 6502 machine code. Pass me a walking frame, somebody?

IT'S A CHASE… TO THE DEATH!

HELL RACER



» [C64] So many options!

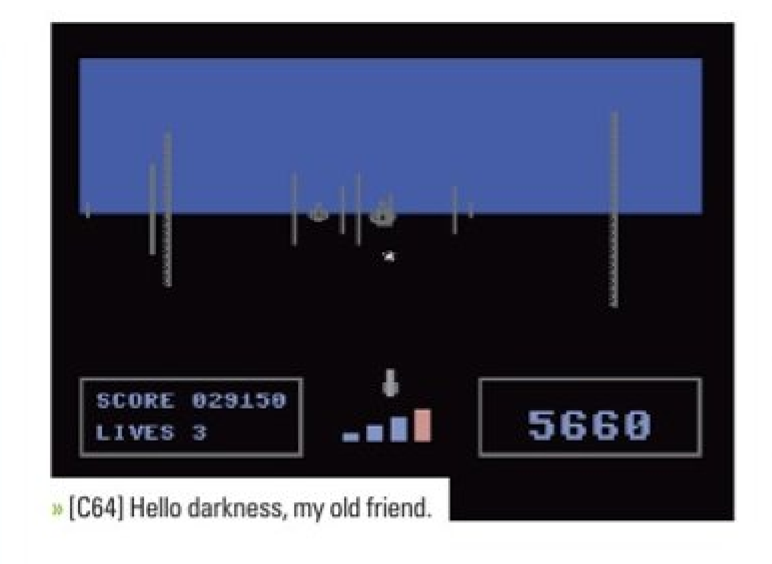
The intelligence about the enemies in *Hell Racer* is limited. In fact, nobody knows who they are, where they came from or why they're so aggressive. What is known, however, is that they use armed hover bikes, which are, unsurprisingly, akin to motorcycles but capable of low-level flight. They'll shoot at anything they don't recognise as their own, and they've constructed forests of crystalline posts in the territories they control. As to the purpose of these constructions, the best guess offered so far is that they somehow generate energy for the invaders.



» [C64] Can't see the forest for the crystal posts.

But as bleak as things seem, all is not lost, because the authorities have captured three hover bikes. So now, rather than spending the summer with his beloved, doing whatever off-duty military personnel do in those situations, our protagonist must instead tear across the terrain, navigating his bike between the colourful crystal posts, avoiding enemy fire and blasting anything else that moves into minute fragments.

There are three hover riders in each sector to take out, and occasionally a helicopter will arrive, which will replace enemies that have been destroyed. It should be noted that, although each bike has been brimmed before it's handed over, travelling at the speeds required to catch another bike will consume fuel like Pac-Man at the local pharmacy, so one eye should be kept on the gauge. Being shot down or smashing into a post means the loss of one of the three captured bikes, but running out of gas will end the mission regardless of how many reserve vehicles are available.



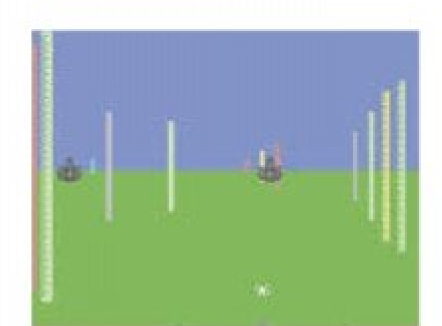
» [C64] Hello darkness, my old friend.

As with previous Data-Land games, the graphics are average and the sound primitive, with the SID chip reduced to just laying on a few lacklustre spot effects during play, but the presentation is thorough, offering a training mode, scoring information, a high-score table and an option to save those scores to the disk.

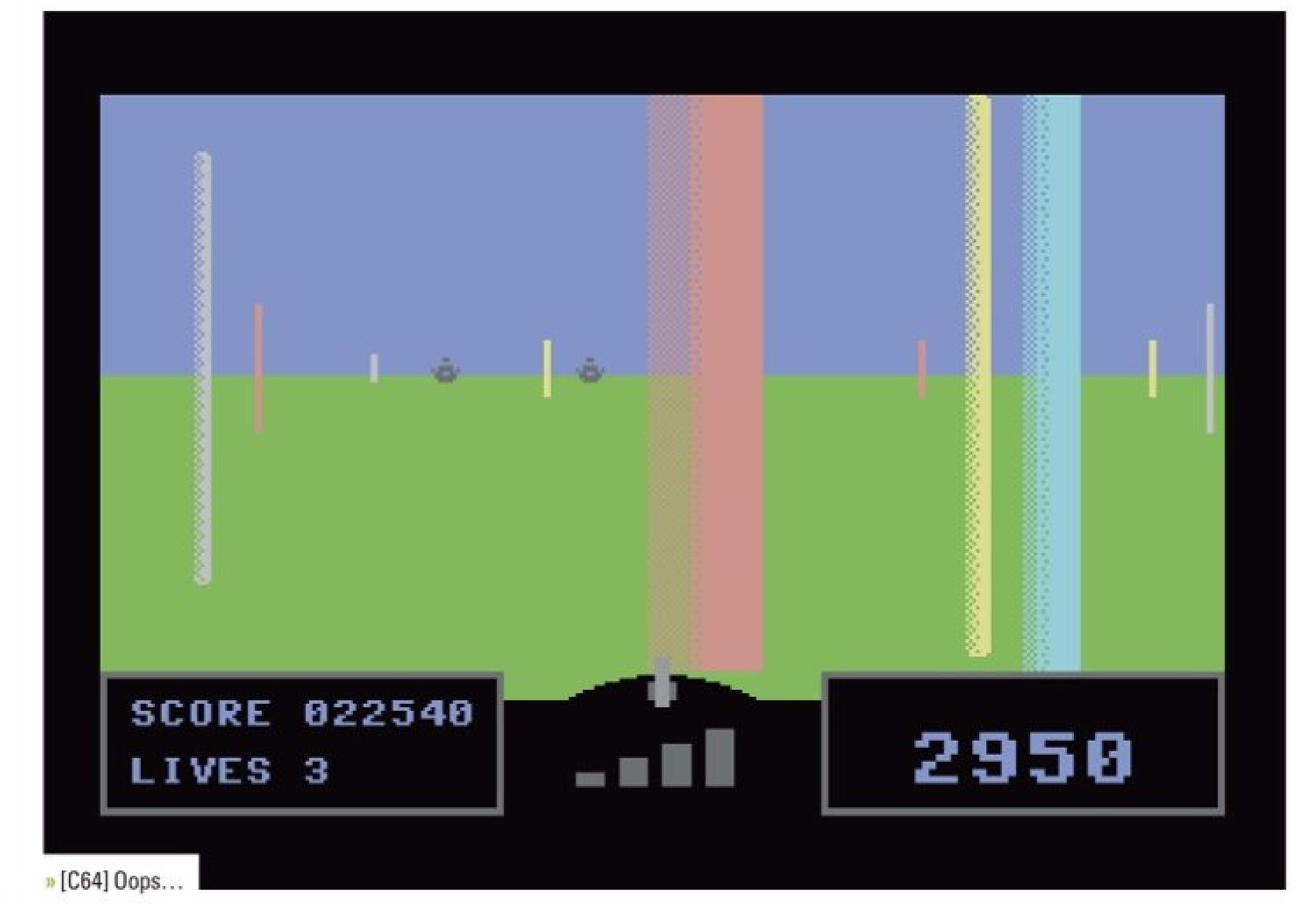
Hell Racer may have been billed by its developer, Jörg Heyltjes, as a sequel to Novagen's *Encounter*, but that's not really the case since there's only a loose resemblance to the Paul Woakes classic. And, despite being quite similar visually, this isn't Mervyn Estcourt's legendary *Deathchase* ported to the C64; instead it's a reasonably close conversion of *Zagan Warrior* from the C16 – the coder of that game is acknowledged in the credits – which does, in turn, bear some similarities to *Deathchase* but isn't a perfect clone.

This doesn't make *Hell Racer* a bad game, of course, and although it's tougher than its inspirations, we found zipping through the forests entertaining. And now that the developer has proved it possible to handle something similar to *Deathchase* on the C64, hopefully someone will have a go at converting the real thing!

84%



FORMAT: C64
DEVELOPED BY: DATA-LAND
LINK: KIKSTART.EU/HELL-RACER-C64
RELEASE DATE: 2012
PRICE: FREE
REVIEWED BY: JASON KELK



» [C64] Oops…

NEW GAMES NEEDED

If you have a homebrew project you would like to see featured then please contact us at:
retrogamer@imagine-publishing.co.uk

UWOL: QUEST FOR MONEY

» **FORMAT:** ZX81 » **DEVELOPER:** THE MOJON TWINS
» **DOWNLOAD:** KIKSTART.EU/UWOL-ZX81 » **PRICE:** FREE

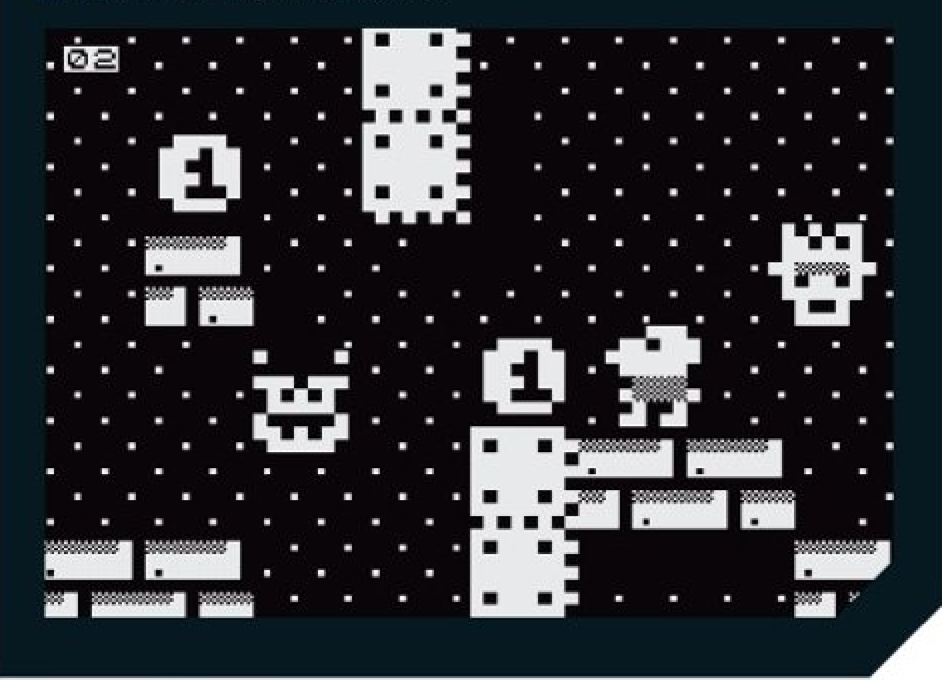
Regular readers will have noticed that we haven't heard much from The Mojon Twins lately, but they are still producing the odd game; this time it's a conversion of the popular *Uwol: Quest For Money* to the ZX81. Yet again, Uwol enters the Storm Palace's treasure rooms to emulate his videogaming heroes and grab some dosh, all the while avoiding the surreal security drones.

As with their previous ZX81 conversion of *Nanako*, the Mojons have sensibly redesigned all of the levels because the entire game is working at a chunkier resolution, and a spot of vertical scrolling has been employed to keep the play area from getting cramped.

We noted that *Nanako* felt easier in its ASCII art incarnation and the same seems to be true for *Uwol* as well – possibly even more so since it doesn't randomly place enemies – although it still takes some skilful playing and more than one pass through the triangle-shaped lower levels of the Storm Palace to complete.

85%

» [ZX81] I work all night, I work all day.









» [C64] Oh, stop bleating!

WOOLLY JUMPER

» **FORMAT:** C64 » **DEVELOPER:** THE NEW DIMENSION
» **DOWNLOAD:** KIKSTART.EU/BAA-C64 » **PRICE:** FREE

Agricultural standards must have dropped at the farm where Pepito the sheep and his friends live. The friendly farmer – who isn't going to sell them as chops – has fallen asleep without shutting the gate to his mushroom farm, and Pepito has nibbled quite a bit of the crop before swigging down a bottle of beer too! This combination has knocked the poor ovine for six and, while sleeping it off, his dreams revolve around jumping between fixed-speed scrolling platforms, shooting at aliens and collecting a whistle to summon a spacecraft ride to safety. Obviously.

Pepito's movement when he jumps could probably have been handled better – he moves up then down at a fixed speed – and there are some obstacles that prove particularly difficult to clear quite early into the game, but *Woolly Jumper* is still a fast-paced, entertaining game that also looks excellent and sounds jolly. Give it a go – no need to be sheepish!

89%

VAMPERI

» **FORMAT:** SPECTRUM » **DEVELOPER:** CARLOS DAVID DIAZ
» **DOWNLOAD:** KIKSTART.EU/VAMP-ZX » **PRICE:** FREE

All of the text in *Vamperi* is in Spanish, but we're going to go out on a limb here without dusting off our dog-eared old phrase book and guess that there's an evil vampire in there somewhere and that the brave, heroic player avatar is out to slay him before sunrise. The vampire's coffin is buried in a large maze of rooms, most of which are filled with bats, spiders and other nasties, all fatal to the touch.

And while it looks like a poor man's *Atic Atac* with a similarly skewed top-down view, the visuals are where any real similarity ends because *Vamperi* has one particularly serious issue: it might look decent while paused for the camera in our screenshots, but the game itself appears to be written in BASIC and is painfully slow to the point where the busier screens become almost turn-based. Sadly, this is a flawed action game without much action.

27%







» [Spectrum] I gotta break it out now.

WHAT'SBREWING?

All the latest news from the homebrew community



» [Spectrum] Eat them up, yum yum.

>> Gobble, gobble, gobble

Ever lamented the lack of a perfect 8-bit home version of *Pac-Man*? Well agonise no longer, because Simon Owen has taken it upon himself to get Namco's game on the Spectrum. There are a few limitations: it needs a 128K Spectrum and, because the *Pac-Man* ROMs can't be distributed with it, gamers have to build the program themselves. **kikstart.eu/zx-pac-emu**



» [C64] Smile for the camera!

>> You don't know me

Psytronik has been teasing us with news of forthcoming releases. Nearly complete is the gorgeous *Soulless*, a *Draconius*-style platformer from Georg Rottensteiner and Trevor Storey, coder of C64 platformer *Joe Gunn* and graphics man on C64 and Amstrad blaster *Edge Grinder* respectively. Visit **www.psytronik.net** for more news on this and hopefully other developments.



» [Amiga] Stop messing with me.

>> Caution! Engineer reversing

They're not strictly homebrew, but Philippe Guichardon has spent some time pulling apart the code driving the ST versions of *Gauntlet*, *Super Sprint* and *Joust* to get them running on the Amiga. The legalities are somewhat grey, but hopefully nobody will mind and all three will remain available from Philippe's site over at **meynaf.free.fr/pr**

HOMEBREW

>> The scene's latest news and reviews

WHAT'S BREWING?

All the latest news from the homebrew community



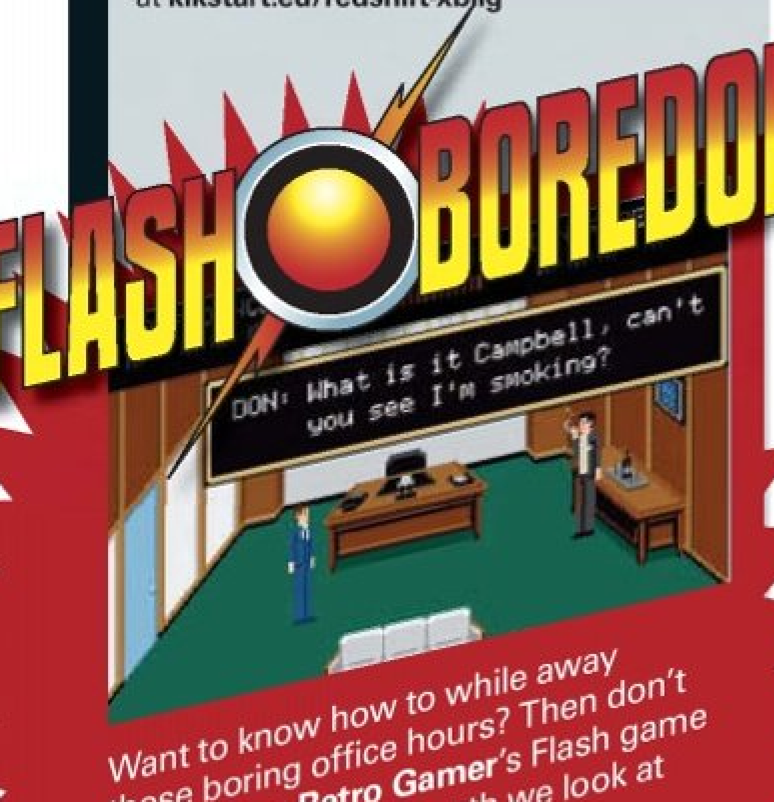
>> What it says on the tin

So if you're a programmer with an XBLIG membership and you've got a load of test code that didn't really work out, what do you do? Just leave them to fester on your hard disk, never to see the light of day? Well, there's always the option of bundling them together into a collection and giving it a cheeky name like *10 Amazingly Awful Games* – and if you do, the option is there to release a second volume! **kikstart.eu/awful-2-xblig** links to the XBLIG shop if you're feeling brave and/or foolhardy.



>> It's red and it shifts

While *Birth Order* has been offering a different twist to the shoot-'em-up genre recently, another game called *Redshift* was released at the same time and has been serving up some far more traditional bullet hell fare. With its attractive bullet patterns, minimalist looks and up-tempo soundtrack, we were reminded of the excellent *Vorpal*. The red, glowing and violent mission starts at **kikstart.eu/redshift-xblig**



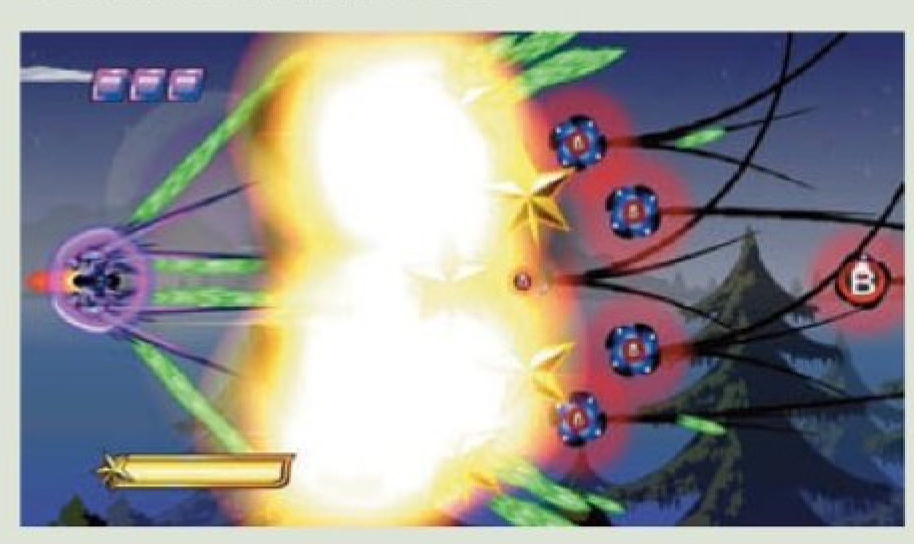
Want to know how to while away those boring office hours? Then don't miss out on **Retro Gamer**'s Flash game of the month. This month we look at ***Mad Men Interactive***

IT MIGHT LOOK like a LucasArts point-and-click adventure and has a similar fourth-wall-breaking sense of humour, but *Mad Men Interactive* is actually a *Choose Your Own Adventure*-style game played via YouTube – help Don Draper save the company, gain inner peace and boost his confidence at **kikstart.eu/mad-men-flash**

XBOX LIVE INDIE GAMES ROUND-UP

BIRTH ORDER

» **DOWNLOAD:** KIKSTART.EU/BIRTH-XBLIG





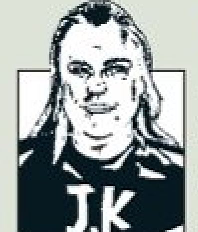


With most shoot-'em-ups, the objective is just to hold the fire button down, aim the stream of electric death at the enemies, and avoid any returned fire, but *Birth Order*, developed by Wide Pixel Games, which was responsible for the excellent *Knight 'N' Grail* on the C64, has other ideas. The core of each enemy is one of four colour-coded buttons, which conveniently look like the A, B, X and Y buttons on the control pad. Holding that button down spews forth bullets and, if the currently selected weapon matches an enemy, they'll lock on to it; otherwise they sail harmlessly through.

The battles take place over 12 different landscapes and are selected from a hexagonal grid, which is a little reminiscent of ITV teatime game show *Blockbusters*. Even more so because failed levels become barriers that prevent progress towards the final destination: a locked-off area of the map that'll need keys earned elsewhere from bosses to access. The map screen also offers the option to select cards collected during battle, which can power up the craft for one level, bump up the experience points or just offer a playing tip.

Birth Order's automatic targeting and large player craft might not suit some more traditional shoot-'em-up fans out there, but anybody who likes blasting things and a challenge should at least give the demo a try.

RAPTOR RESORT



» **DOWNLOAD:** KIKSTART.EU/RAPTOR-RESORT-XBLIG

A theme park where guests mingle with genetically re-created dinosaurs might sound like a good idea, but as a certain movie franchise has demonstrated, it can cause a few health and safety issues. The operators of Raptor Resort are now finding this out to their peril. And, of course, the best thing to do when a theme park is overrun by huge lizards is to drop a couple of mercenaries in by helicopter to clean things up.

It might be yet another twin-stick shooter for the 360, but the developers have tried to mix things up a little by bolting in some activities and side quests that don't merely involve running away from enemies, and there are weapons galore available from the shop.





WOOOPUP!



» **DOWNLOAD:** KIKSTART.EU/WOOOP-XBLIG

It might have one of the silliest names we've heard in a while, but *woOOPuP!* is that meat and two veg of indie development: a *Breakout* clone. But despite not exactly scoring highly for originality, it's still a good variant on the brick-breaking theme and offers up 50 brightly coloured and increasingly tricky levels to work through, along with some fun *Arkanoid*-style power-ups and loads of pyrotechnics.

There are a few slight visibility issues when the particles and light effects make it harder to keep an eye on the ball, but the controls make manoeuvring the ball around fun, and *woOOPuP!* is a solid take on the venerable brick-breaking classic with quite a bit of replay value for the meagre asking price.



THE MAKING OF BB4CPC

THERE'S NOTHING LIKE A GAME OF BUBBLE BOBBLE, BUT WHEN CÉSAR NICOLÁS GONZÁLEZ FELT THAT THE CPC VERSION WASN'T AS GOOD AS IT COULD HAVE BEEN, HE SETTLED DOWN TO WRITE A BETTER ONE

Q&A

Retro Gamer: What about CPC *Bubble Bobble* led to your writing a new one?

César Nicolás González: It was nearly 25 years ago when, as a little kid, I had my first contact both with the original game in a nearby arcade that still exists and the CPC port – at a friend's home, who coincidentally lived in front of that arcade – and, while Firebird's conversion was playable, it wasn't either a loyal arcade port or a good CPC game. I grew even more bitter when I played the pretty C64 version and bought Ocean's beautiful CPC port of *Rainbow Islands*.

As years went on and I learned how to write software and draw pixel art, and I got involved again in the CPC thanks to my emulator, CPCE, and other related works, I grew more willing to bite the bullet and make my own conversion of *Bubble Bobble*. But real life always had top priority, and it was only in late 2008, right after losing my first stable job to the budding crisis, that I chose to set myself a goal and get it done instead of sinking into inaction and depression.

» [CPC] The beginning of a fantastic story.



» [CPC] Aww, we've already got a red X!

RG: Did anything come across from the Firebird version?

CNG: If you mean the CPC version, not at all. I didn't even want to look at it! Seriously, the Firebird version was just too poor to be useful; [doing] everything from scratch was easier and gave me better results than trying to analyse and rebuild the lazy, messy game churned out by Firebird. My main reference was instead *Rainbow Islands*.

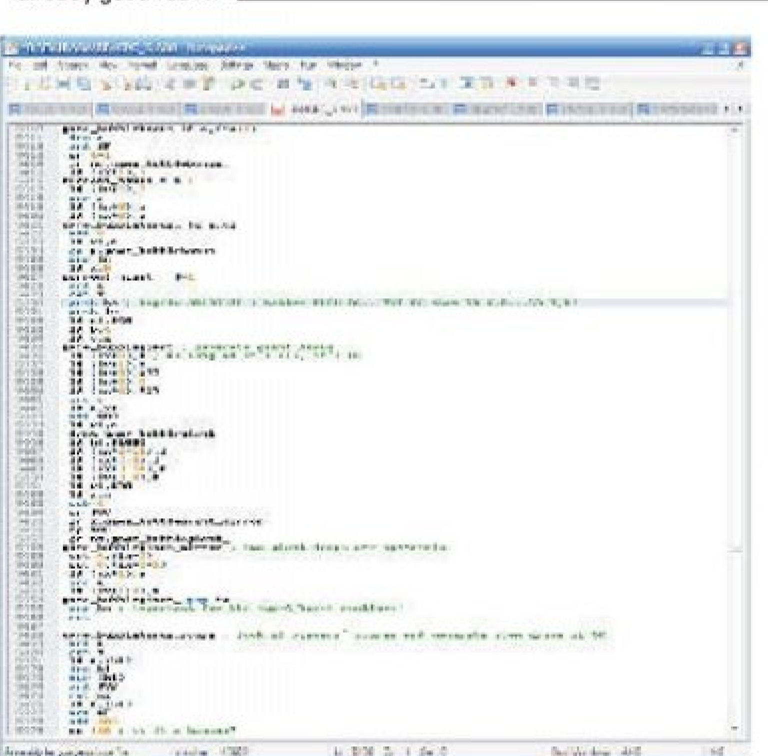
RG: Were there any moments where things went particularly well or badly?

CNG: Truth be told, the biggest enemy of *BB4CPC* was myself. Depression is a horrible thing, and as my job prospects worsened, procrastination took over my life; everything could wait for tomorrow.

From a technical point of view, there were three major challenges. The first one was the physics engine: I had to rewrite the scenery collision detection routines millions of times until they behaved exactly like I wanted, and the same happened with the bubble collisions. *Bubble Bobble* was perhaps the first game that relied heavily on physics, and many stages depended on quirks that had to be respected to ensure their solvability.

The second one was the limited size: my goal was to make the whole game fit in a bare-bones 64K CPC, thus I had to use a single video buffer – hence the sprite flickering – and optimise routines towards size instead of efficiency, a problem that worsened as the game developed. I also had to switch compression methods twice from Mayhem's MegaLZ to Jörgen Ibsen's apLib, and then to Magnus Lind's Exomizer and compress more and more fragments of data.

The third one was the music: I had been able to develop a lightweight musical engine on my own, and then to write the score of the main theme, but I had to retouch it for weeks until everything was on-key. French demoscene musician Tom & Jerry supplied me in the late stages of development with several quick-and-dirty scores that, while unusable on their own, proved immensely useful to my work and gained my eternal gratitude.



» [CPC] Some of the programming behind *BB4CPC*.



» [CPC] *BB4CPC*'s sprites – in Microsoft Paint!

RG: Were you satisfied with your work?

CNG: That's a very difficult question. Sure, I want to feel satisfied and proud of it, but at the same time I feel bad for having spent three whole years on something that, had I been less depressed, could have been finished much earlier. Another thing that saddens me is that, despite my work on arcade-faithful gameplay features, most players will never notice them. How many players know that the 'EXTEND' bubbles are generated when popping at least three bubbled baddies at once, for instance?

RG: There have been occasional updates. Will *BB4CPC* ever be called 'complete'?

CNG: That depends of the point of view. On one hand, the game itself is pretty much complete: all known bugs from the first two releases are gone, and the third game mode should keep players busy for a while. On the other hand, I dream of improvements in the sprites and the music, as well as cover art and a loading screen, but the only input I've received so far is an unfinished rough sketch made by the remarkable cartoon artist S-L-B.

RG: Do you have any future projects?

CNG: Right now there are two. The most immediate is the extended version of *Viaje Al Centro De La Tierra* (*Journey To The Centre Of The Earth*), Topo Soft's megaproject from December 1988 whose 8-bit versions were regrettably sold unfinished; if everything goes well it will be officially published at the RetroMadrid 2012 convention. The other is hinted in the Ultra mode ending of *BB4CPC*: a CPC version of *Parasol Stars*, the third episode of Taito's *Bubble* trilogy. Will I be able to get it done some day? Time will tell.

MAILBAG

HAVE YOUR SAY… SEND US A LETTER OR MAKE YOURSELF HEARD ON THE ONLINE FORUM – **WWW.RETROGAMER.NET**

STAR LETTER

HOOK 'EM YOUNG

Dear Retro Gamer,

The other week my 12-year-old nephew came over to stay with us, as he was visiting my 11-year-old son. He instantly demanded that they played *Modern Warfare 3*, only to be told that it was Dad's game, and that he wasn't old enough to play it. Before a tantrum could erupt, my son, Daniel, suggested that they played on his Super Nintendo, and that they could play any game he liked.

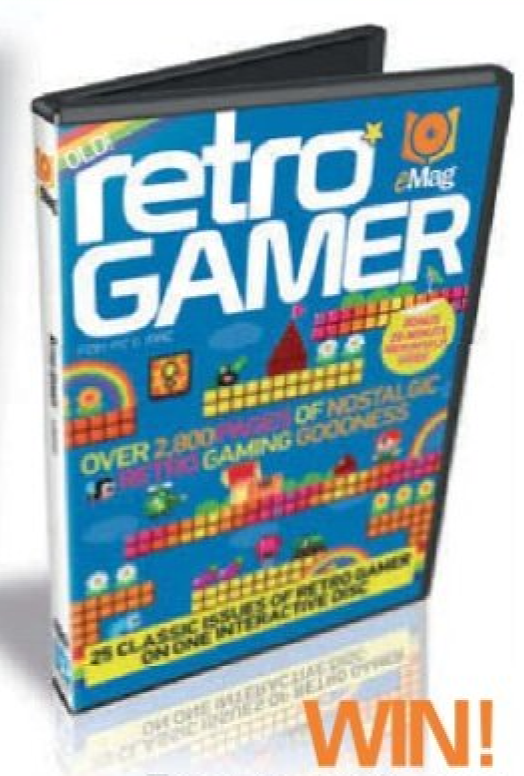
The game he eventually picked was *Donkey Kong Country*, primarily because he knew that there was a version available on the "rubbish Wii". Anyway, he sat down and played it, and within ten minutes he was hooked. Suddenly it didn't matter that the graphics weren't cutting-edge, or that he wasn't killing people; he was totally immersed in a game that was older than he was. After about an hour, my son suggested they play something else, and he hungrily went through my entire collection of around 40 games, looking for more retro treasures.

The rest of the weekend flew by thanks to *Super Mario World, Super Mario Kart, Pilotwings, Teenage Mutant Ninja Turtles* and *Super Punch-Out!!*. In all that time, not once did he ask to play on *Call Of Duty*, nor any other 360 game. Who knows? Maybe I'll show him **Retro Gamer** the next time he comes over to stay.

James Wilson



We're always interested to hear about people who have converted the younger generation over to classic consoles. Darran regularly plays on both the SNES and Dreamcast with his six-year-old, while Stuart is already planning to introduce his daughter to the joys of the Amstrad as soon as she's old enough. Have a shiny new eMag for converting a current-generation gamer to a more important cause.



WIN!

Every month, one lucky reader will receive a copy of our latest eMag, **Retro Gamer Load 3**, a bargain if ever there was one. All you have to do is present a lucid, thought-provoking piece of literature that melts our souls. Failing that, something funny with swear words, or something *Strider*-related will go down just as well…

HALO, I'M NEW TO RETRO

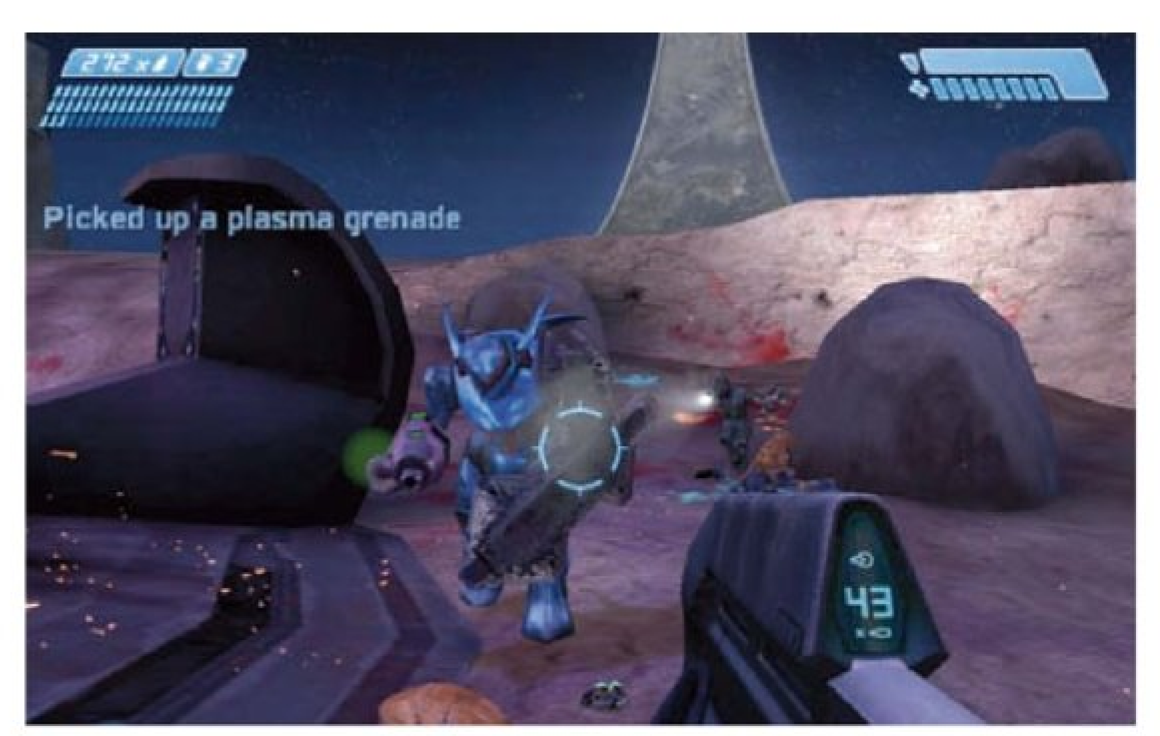
Dear Retro Gamer,

I've just started reading your magazine, but I'm a bit alarmed by your lack of Xbox coverage. I'm 24 years old and have grown up with both the Xbox and, later, the Xbox 360. I was lucky enough to receive an Xbox along with *Halo* and *Munch's Oddysee* for my 13th birthday and have precious memories of multiplayer matches with my friends. I was really disappointed that you never reviewed *Halo: Combat Evolved Anniversary* when it was released, and was also surprised that you never did anything on *Halo* to tie in with its tenth anniversary.

Halo and the Xbox have been massively important to both Microsoft and gaming in general, and I'm baffled that you're not covering Microsoft's console more often. As you might have guessed, I'm a massive fan of Future Classic and would like to nominate *Halo* for a future issue.

Simon Parker

Glad to hear you're enjoying the mag, Simon. While we're fully aware that the Xbox is well within our standard remit of covering anything that's more than ten years old, we're also aware that many of our readers do feel that the last generation of consoles is a bit too recent, especially when we're only one gen removed from it.



» [Xbox] Simon Parker wants to see more Xbox coverage in Retro Gamer, especially *Halo*. Who agrees with him?



» [Spectrum] Our Ocean feature seems to have brought back memories of games like *RoboCop*.

If we can get some genuinely interesting stories about big games, we may well do more articles in future issues, but in the meantime they'll continue to take up a small section of the magazine. We were planning to cover *Halo: Anniversary* for the reasons you mentioned, but it arrived too late to review. As it stands, we think the original remains the better game.

AN OCEAN OF LOVE

Dear Retro Gamer,

The Ocean feature in issue 101 was fantastic, as Ocean played a big part in my gaming life during the mid to late Eighties.

The first Ocean game I ever played was *Hunchback* on the VIC-20, but I loved the arcade conversions and original titles on my different formats (VIC-20, Spectrum, C64, Amiga and NES). My favourite game was *RoboCop* for the 128K Spectrum, though. The music was great and it had digitised speech, and even first-person shooter bits, including saving the President at the end.

YOUTUBE UPDATE



WHEN HE'S NOT working on the magazine, Darran likes to dabble with YouTube. There are a host of videos on his channel that cover a number of classics, as well as the monthly **Retro Gamer** preview. Search RetroGamerDaz on YouTube for more information.



CONTACT US

Snail Mail: Retro Gamer, Imagine Publishing, Richmond House, 33 Richmond Hill, Bournemouth, Dorset, BH2 6EZ

Email: retrogamer@imagine-publishing.co.uk

Your NES feature linked perfectly, as it reminded me that I have still got *New Zealand Story* for the NES. An Ocean-published UK game that was developed by Software Creations. With today's global games market it's good to see how forward the UK market was back then. It's just a shame that the UK government didn't back the industry like the French and Canadian governments did.

Thanks,

Adam Ross

Dear Retro Gamer,

I adored the Ocean feature that appeared in issue 101 and really hope that you plan to do more of these in the future. The article gave a great insight into the structure of Ocean and the UK games scene at the time, and it's clear that Gary Bracey really helped the company turn a corner. Nice coup to get Jon Woods, as I've never seen him interviewed before.

Greg Williams

The Ocean feature went down well, with readers commenting on both the article and Bob Wakelin's fantastic cover art. We're happy to look at similar features, but the logistics involved in speaking to so many people mean it can take a little longer than usual, which is why the Electronic Arts roundtable is missing from this issue. We'll try to ensure that they appear every few months, as they make for a nice alternative to the more condensed From The Archives.

A NEWBIE SPEAKS

Hello Retro Gamer,

This is my first time 'writing' to a magazine, so bear with me.

My first memory of computer gaming was watching my uncle playing *California Dreams* on an old Atari, I believe. However, I remember having a Commodore 64 as well, so God knows what came first.

Anyway, until five days ago I had NEVER heard of your magazine before. I know that may upset you – and trust me, after flicking through this masterpiece for the last few days it has upset me too. This magazine is what I need – no longer will I have to spend an hour at work looking through lists of old games on Wikipedia, searching for that hit of nostalgia that you can only get from stumbling across a picture of some old box artwork.

I was simply following my girlfriend through the magazine section in the supermarket when my eyes were caught by the Ocean logo on the front cover of your most recent issue. 'STOP!!!' That was what my brain said, and then forced me to go back a couple of steps to investigate further. I began to flick, and within about four pages I was heading to the till with your magazine in my hand.

Put simply, this magazine is fantastic and I want to say thank you after only one issue. This magazine is what I need.

I am going to subscribe to your magazine… Is there a way of me buying any back issues?

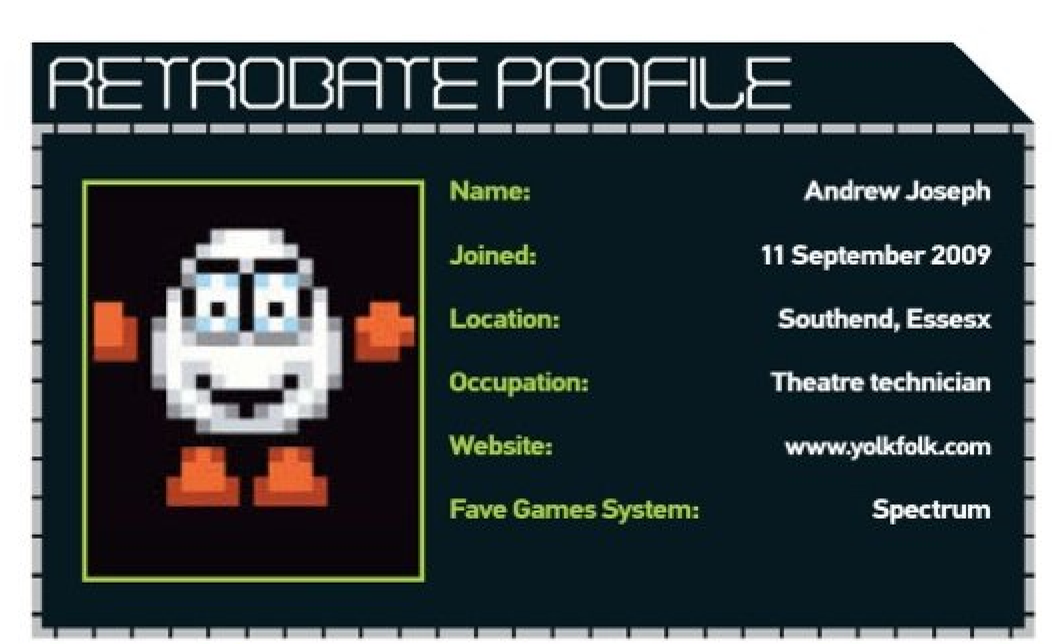
I'm 8-bit excited.

Thanks,

Scott Garroch

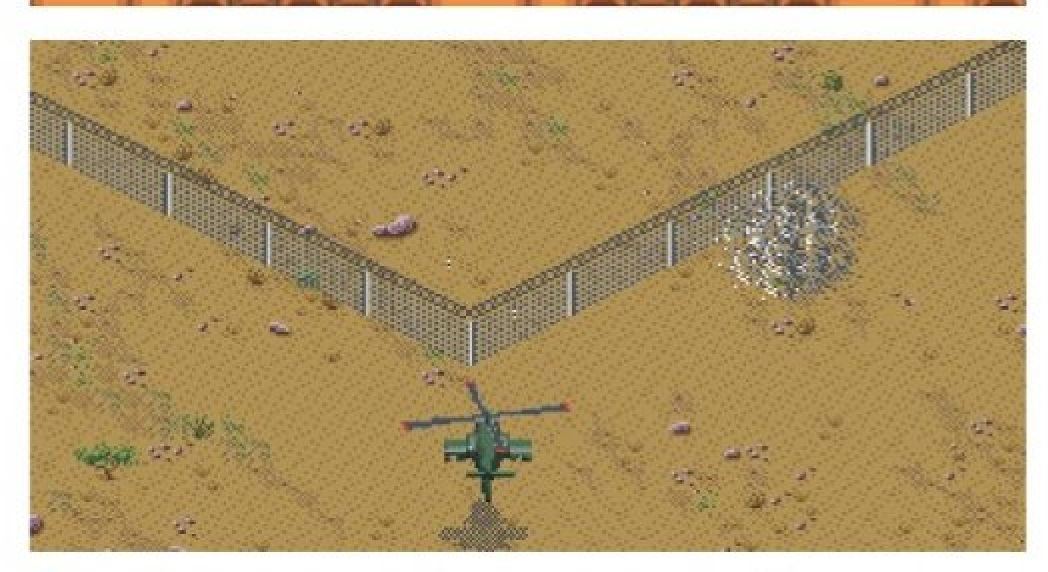
Welcome to the club, Scott. We're glad to pick up new readers and hope you continue to enjoy the mag. If you're looking for back issues, it's possible to buy them from us by visiting www.imagineshop.co.uk. Be warned, though: they sell out very quickly.

RETRODATE PROFILE



Name:	Andrew Joseph
Joined:	11 September 2009
Location:	Southend, Essesx
Occupation:	Theatre technician
Website:	www.yolkfolk.com
Fave Games System:	Spectrum

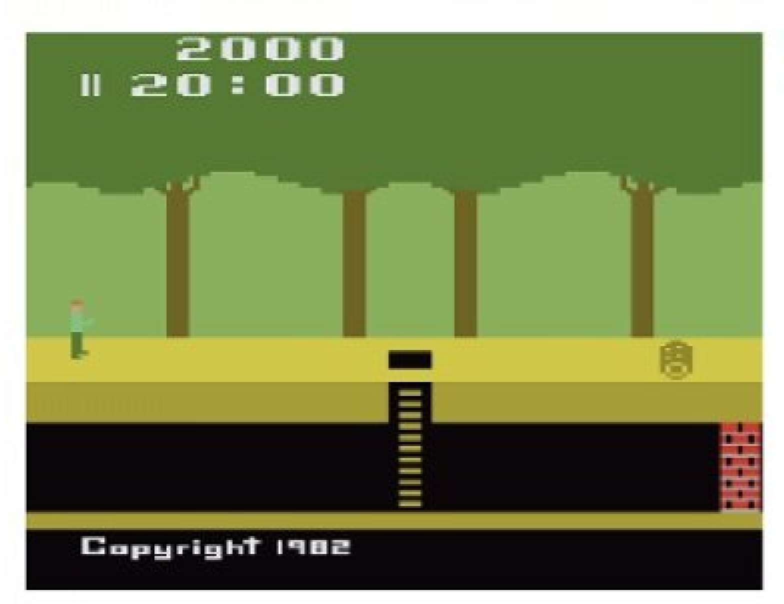




[Mega Drive] Scott gets a nostalgic rush when he views Mega Drive games. Here are two more for you.

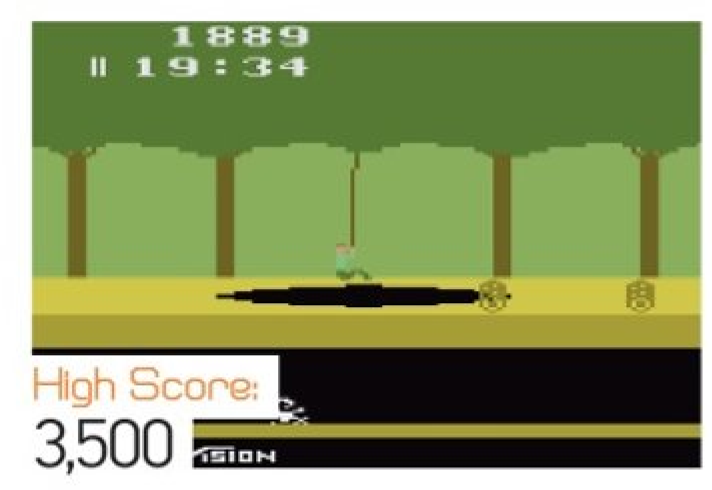
BEAT THE TEAM

Think you're good at retro games? See if you can beat the staff at some of their favourite titles



PITFALL!

This month we wanted to celebrate an Atari classic. Stuart voted for *Yars' Revenge*, but Darran overruled him with *Pitfall!*. He still ended up losing, though…

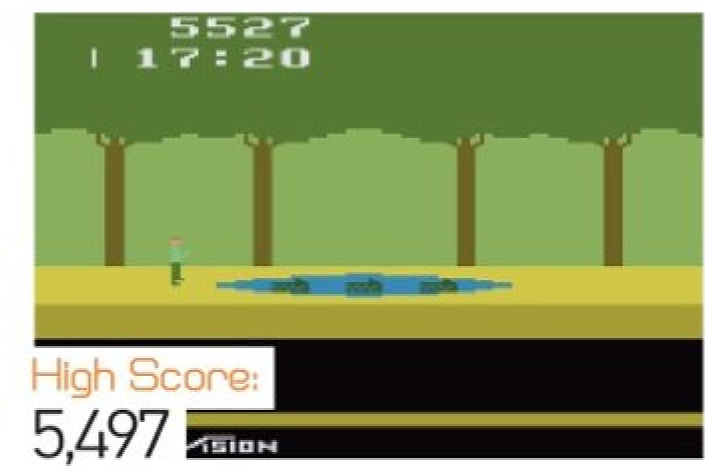


High Score: 3,500



DARRAN'S PITFALL! TIPS

First off, look before you leap. It sounds obvious, but there are so many sneaky little traps that you really need to keep your wits about you. Try to stay away from the bottom passage as well, as it has lots of annoying brick walls.



High Score: 5,497

STUART'S PITFALL! TIPS

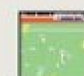
The important thing to remember is that your score decreases with each hit object, so you really need to avoid as much stuff as possible. Timing is critical as well, especially when jumping across the heads of crocodiles.

From the forum

» To have your say visit www.retrogamer.net/forum

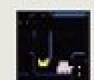
Every month, **Retro Gamer** asks a question on the forum and prints the best replies. This month we wanted to know…

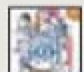
What's your favourite Atari 2600 game?

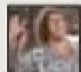

jdanddiet *Warlords.* Best multiplayer game ever!

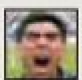

Jagfest_UK *Solaris*, an absolutely incredible evolution of *Star Raiders* that pushes the 2600 more than anyone would have ever thought possible.

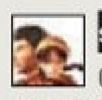

Confessor I should say *Pitfall*, but I'm going for *Frostbite*.

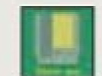

fredghostmaster It has to be *Kaboom*. Simple but brutally fast!


DreamcastRIP *The Empire Strikes Back*. It was like you really were Luke Skywalker, flying a Snowspeeder with a little imagination. Okay, a lot of imagination!

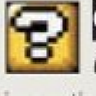

Scapegoat *Combat* has to be one of the best multiplayer games I've ever played.

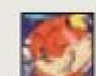

clarance *Pressure Cooker* – another Activision masterpiece. Played it for the first time on the Retro League a few seasons back. So addictive, and pretty too.

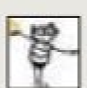

samhain81 One word: *Centipede*. It was the first game I ever played in my life. I was six; I had a black-and-white TV and a joystick in front of me in the living room. Good times for a six-year-old.


bsg Got to be *Combat*. It was my first experience with a multiplayer game…

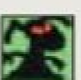

Dave300 *Midnight Magic*!


Gabe *Combat*. The biplanes in particular: killing my brother with a shot while hidden in the clouds never got old.

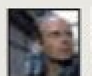

noobish hat Got to be *Custer's Revenge*. Can't tell you how many boxes of Kleenex I went through with that game.

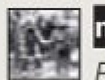

Mire Mare *Venetian Blinds*. So good it got a Game Room release.


markopoloman *E.T.* I was addicted to this as a kid. Actually, my fave 2600 game has got to be *Warlords*. One of the best multiplayer games ever made.

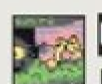

deadpan666 *Crackpots*! The star of the game looks a bit like me apparently, and seems to share a hatred of things with eight legs! Spent many hours squishing spiders in this, though. I reckon it's on a par with *Kaboom* for frantic action once you get into the later levels!

blockhead *Dragster* is the best game I have ever played for the 2600. It has everything. Challenge, competition and chunky visuals. Still a favourite in my house after a night out!


crusto *Combat* and *Space Invaders* are the only two games worth remembering on that scrapheap of a console.


ncf1 *Phoenix*. A decent arcade conversion that still plays well.


necronom I had a VCS, but only had *Combat* and *Space Invaders*. I can't remember getting anything else, as the games were too expensive, and a friend used to bring a bag full of games round from his uncle's shop. I didn't ever play anything that I liked enough to spend £25 on, though I probably missed playing a few classics as I sold it and got a VIC-20 shortly after. I played *Keystone Kapers* in the Retro League four years ago and really liked it, so that's probably my favourite.


Mayhem If we're just limiting the discussion to original releases and not homebrew, then for me it's a toss-up between *Warlords* and *Adventure*. I had the privilege of watching Warren Robinett dissect and go through the entire process of how he created the game about ten years ago, and it still fascinates me how much he got out of the machine in terms of just merely making it all work. In 4K.

Cafeman I love Activision's *Enduro*. Snow, fog, day and night racing, and it gets challenging after day seven. Who can forget trying to pass 300 cars as the countdown keeps beeping at you and then passing that last car just as the new day begins! YEE HAW!

kiwimike While I loved *River Raid* for single-player, our most loved cart had to be *Combat*. Many a fight continued off-screen, and lucky those old VCS controllers could handle a good biff…


pantaloons *Adventure*. Not the most detailed main character but fitted nicely in the dragon's tummy.


Liamh1982 I agree with *Enduro* – a nice risk/reward mechanic. Dare you go faster and increase the chance of crashing, or take it easy and not pass enough cars? It's certainly better than that load of old toot *Pole Position* anyway.

YOUR OPINION PLEASE

STARTING A GAMECUBE COLLECTION

commanderkaiser I want to collect for the GC. There's a ton of good games out there but it seems they are always hugely expensive. Any recommendations?

Roo If you're not wanting to shell out loads of money, I'd suggest you scratch around the likes of Amazon and Play. You can get plenty of great games for under a fiver delivered, including *Super Monkey Ball*, *Wave Race: Blue Storm* and *Viewtiful Joe*.

Megamixer I reckon the GameCube will eventually be like SNES is today – games going for insane money on eBay – so even though prices have been on the rise for a while, it's better to buy now than in the future!

ALK If the DK Bongos sound like fun, then the *Donkey Konga* games can be fun, especially in multiplayer.

MEMORABLE LANDSCAPES

Groovejackson What is your most memorable landscape in a game? It might be from a game last year, or another decade, but think about the aesthetics, the atmosphere, the experience – what made it special?

Zagrebo Karamoon from *Shadow Of The Beast II* always felt really atmospheric. I think the music helped.

nakamura Personally, the greatest gaming landscape ever is from *Final Fantasy XII*. It just feels like one mega continent of connected locations. Truly a stunning place to be, certainly in the Paramina Rift with the changing weather and lovely music.

Nall *Last Blade 2* always sticks out to me. The Bakumatsu era is well represented. Some stages don't even have music and rely totally on ambiance and nature sounds, which only heightens the mood.

ZX SPECTRUM GAMER

sunteam_paul After months of being lazy, I've finally got round to finishing off issue 2 of my Speccy ezine.

Antiriad2097 Great stuff, thanks for the effort. Issue 1 was an enjoyable read. Issue 2 cover has me intrigued already.

JetSetWilly Just read through both issues, and I loved it. The nice touch of humour is very reminiscent of the likes of *Crash* and, later, *The One* and *Amiga Action*, especially the Cake of the Month section.

Jagfest_UK Just grabbed it and can't wait to read it when I get time! Excellent work yet again!

pantaloons Just had a quick read during a break at work. Which turned out to be a long break as this is superb work! Basically I cannot even find a single thing to suggest for improving.

OLD vs NEW

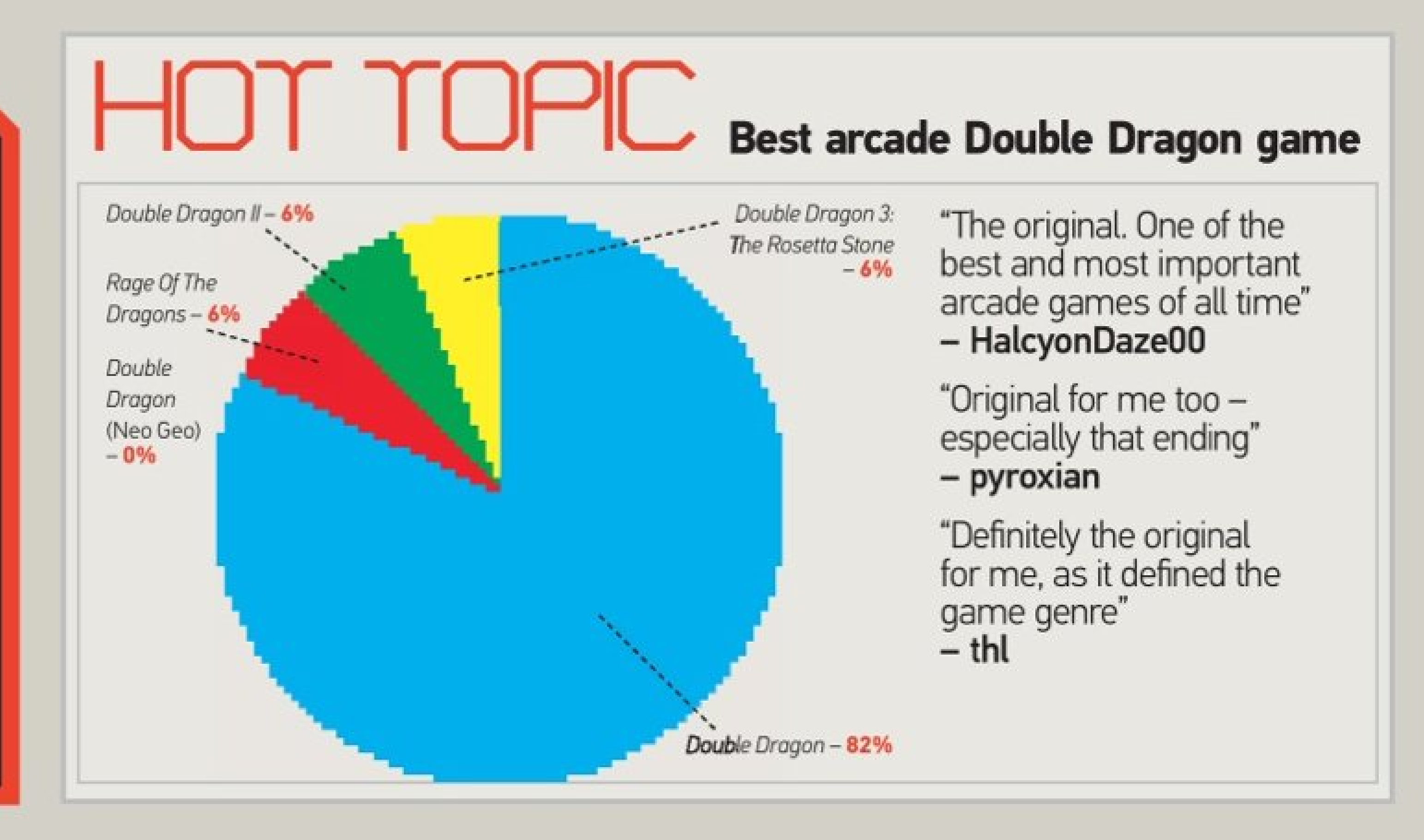
We find out if the classics are better than their successors. This month, *Silent Hill 2* vs *Silent Hill 2 HD*

Silent Hill 2 | Silent Hill 2 HD

100% | 0%

ToxieDogg *Silent Hill 2* needs the fog, darkness and murky graphics to create its atmosphere.

Sal Feena Have to disagree with ToxieDogg. I think the game still has the grimy and nasty look.



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FIGHT CLUB

Dear Retro Gamer,

I just wanted to say keep up the excellent work and I have a message for Ben, who called me a grumpy old man in issue 90. Just because I had some constructive criticism in regards to the Future Classics feature doesn't give you the right to call me that. I'm 35 years old anyway! Why don't you shave off your teenage chin whiskers and grow up?

I have been with the mag from the beginning – where were you? Probably reading the latest Xbox mag. If it wasn't for people like me, the mag wouldn't be around for you, so don't go pointing fingers. I don't mind some modern coverage, but not at the expense of the past retro icons. Without them you wouldn't have your current PS3 or Xbox. **Retro Gamer** will always be on my top shelf.

Regards,

Down Under

Come on, guys. Can't we all just get along?

SCORE ATTACK

Dear Retro Gamer,

I've been playing retro games for years, and one thing has come to mind about current games. When games started in the arcades, the games had no 'end' or any real level variation; you would play to see how long you could last and to beat your best score or that set by other players in the arcade that day. It was all about the high-score challenge.

I'm not interested in Twin Galaxies records or playing a game week in, week out to beat someone else's score. I'm rubbish at most games anyway, but trying to beat my personal best gives me something to replay a game for when I play arcade favourites like *Rygar*.

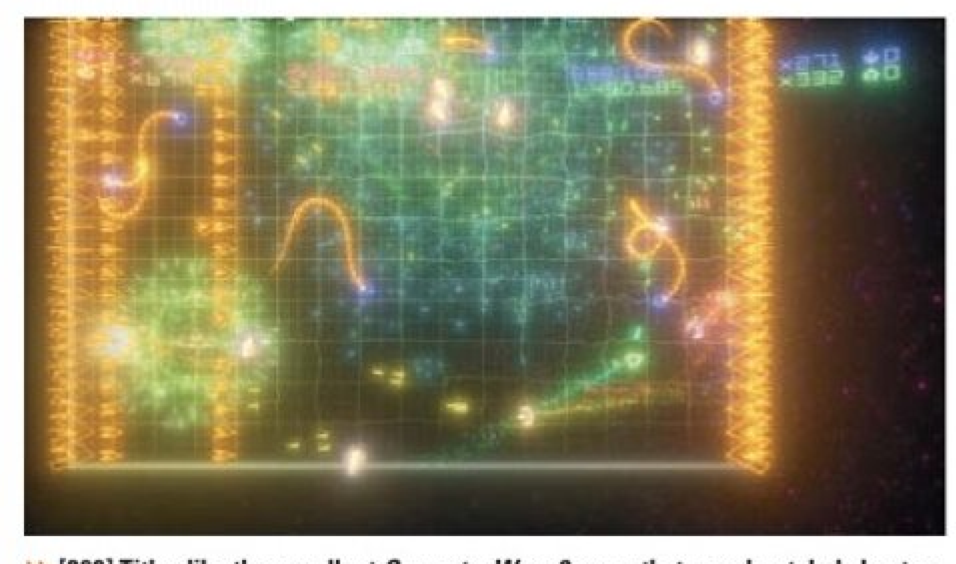
The really annoying thing about some games, though, that I COMPLETELY get on my soap box about, is when the score does not return to zero when you continue! I bought *Metal Slug 3* on PS2 from a bargain bin after reading your write-up in issue 98 and it has that exact problem. Great game, but if you can achieve a high score by pressing continue constantly, what's the point? Why even have lives when dying has no penalty?

Rygar would be spoilt for me if it had that problem. *Strider* doesn't have that issue either! Retro gamers like a good challenge, and when my name was in the high scores of a *Bubble Bobble* machine back in the Eighties it was because I was good at it, not because I had an inexhaustible supply of 10ps!

When a game gets it right, it is about completing a game AND getting a high score. If you die, the score zeros out but the high score is shown. That gives it replay value and challenge, and that's what I like best. I wonder why they stopped making them like that?

Stephen Westwood

A lot of it comes down to the fact that we live in a generation where people don't want to be challenged. Look at the likes of *Call Of Duty*, where the game can be completed in six hours. Having said that, there are plenty of great games that continue to work on the score-based systems you obviously crave; they're just not as abundant as they once were. *Bit.Trip Saga* has just been released for the 3DS and Wii; there are a host of great Cave shooters on iOS; and PSN, XBLA and Steam are rife with great arcade blasters. There are still plenty of great score-chasers if you're prepared to look for them.



» [360] Titles like the excellent *Geometry Wars 2* prove that arcade-styled shooters are still alive and well.

> "If you can achieve a high score by pressing continue constantly, what's the point?"

DISCUSSED THIS MONTH

The Wii U controller

A video was recently leaked that showed some of the things you can expect in Ubisoft's brand new *Rayman* game, *Rayman Legends*. Aside from glorious visuals, it also featured a toy rabbid being placed on top of the controller's screen and appearing, *Skylanders*-style, inside the game. Darran's massively excited, as it means more games he can play with his kids, while Stuart feels he hasn't seen enough of the games to have a valid opinion. One thing is for certain, though: E3 is going to be very, very exciting.

THE ONES THAT GOT AWAY...

This issue's covers that nearly happened



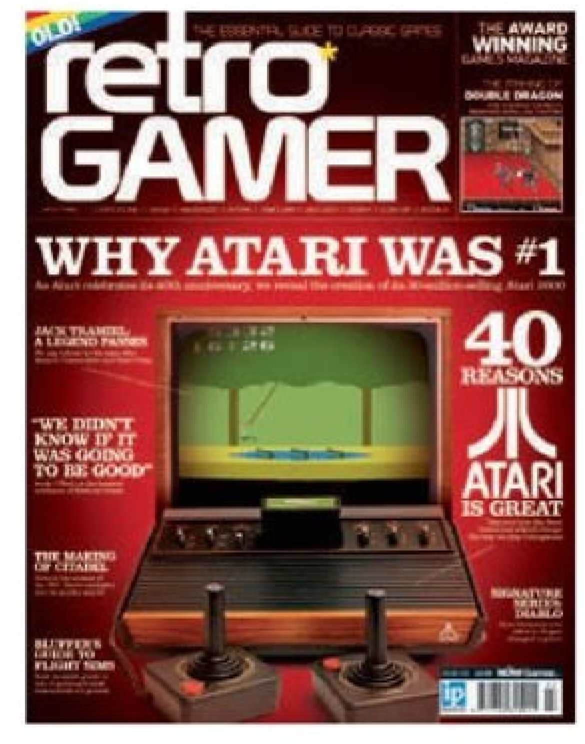
DARRAN

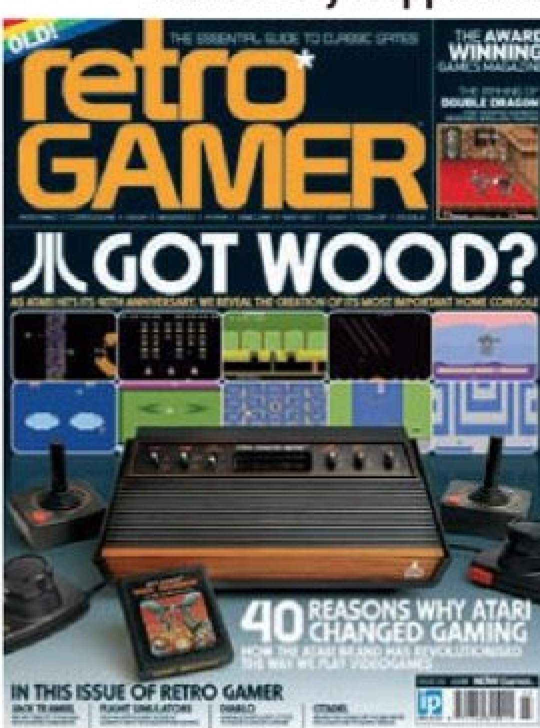
It's always hard finding a cover to define an issue's content, but this month was particularly difficult. We wanted to try to re-create a classic Atari advert from the Seventies, and while the cover on the far right does do that, we felt the final choice did it a lot better.



STUART

My personal favourite cover is the one on the right. It's bold, punchy and extremely confident, giving a good indication of the many great features in the mag this month. It didn't feel very old-fashioned, though.







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Working Class Heroes

From Miner Willy to Mario, Trashman and more, Retro Gamer reveals why a generation of developers turned mundane jobs into videogame heroes



MORE EXCITING FEATURES TO LOOK FORWARD TO NEXT ISSUE



40 Years Of Pong

■ We speak to developers old and new about how Atari Inc changed entertainment with one of the most important games ever made, and its impact on them and the industry.

Electric Dreams

■ Rod Cousens explains how he turned his pet project into a titan among Eighties software houses.





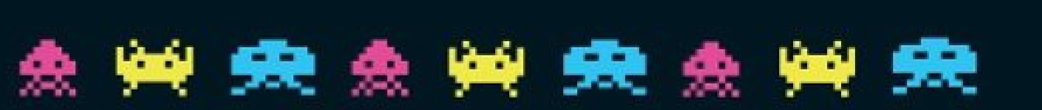
Kick Off

■ Revealing the many different games associated with Dino Dini's seminal football franchise.

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■ Our latest collector's guide looks at one of the coolest retro systems that money can buy. Start saving now.







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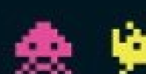
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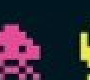
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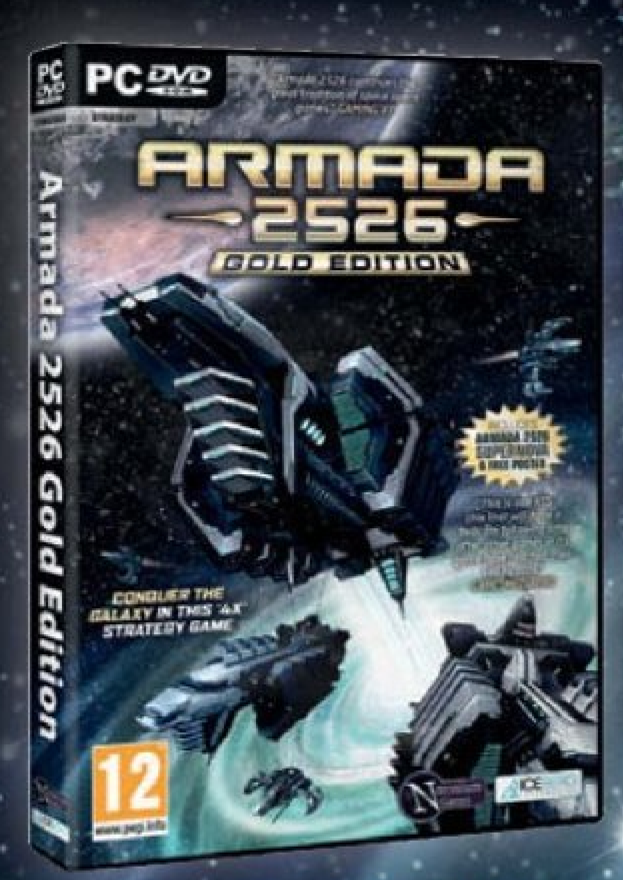









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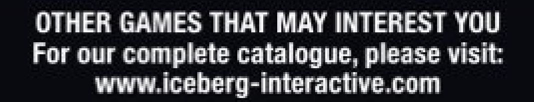

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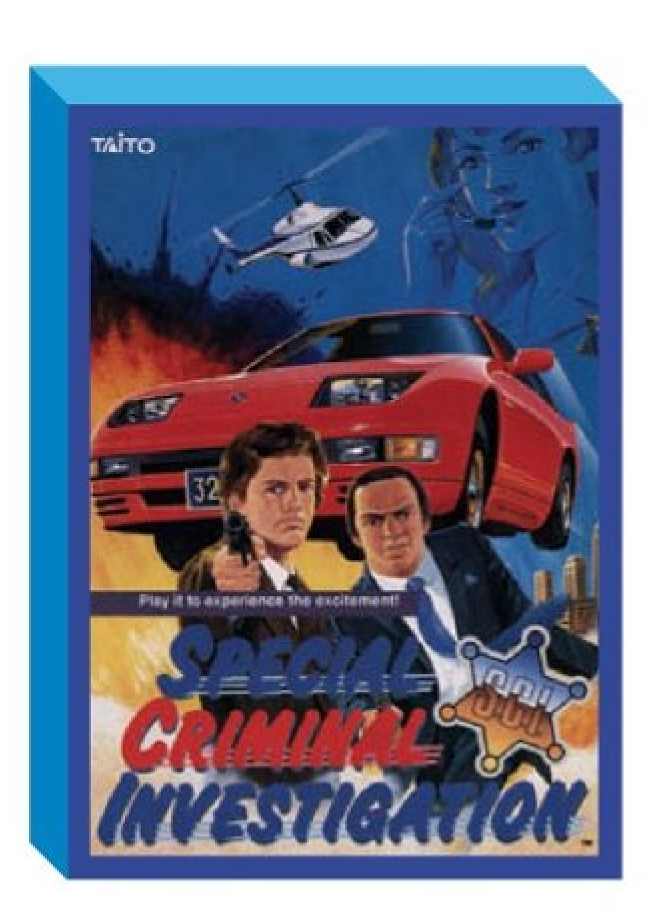

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ENDGAME

SPECIAL CRIMINAL INVESTIGATION

» Gibson and Broady were reunited for this sequel to Taito's cops-and-robbers hit, Chase HQ. The pair traded their Porsche for a snazzy new Japanese sports car, and with the profits Broady bought himself a gun. When the President's daughter gets kidnapped, they're called in to rescue her. But will they reach her in time?





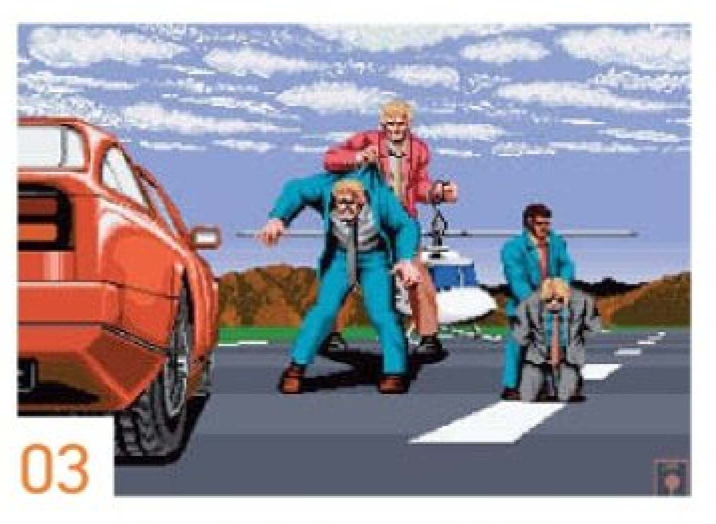
01

» Gibson and Broady track down the convoy of the evil mob boss Tony Raymond, who uses a conspicuous lorry with his name plastered over it. After a tense chase, the truck exits to make way for the final boss: an armed helicopter.



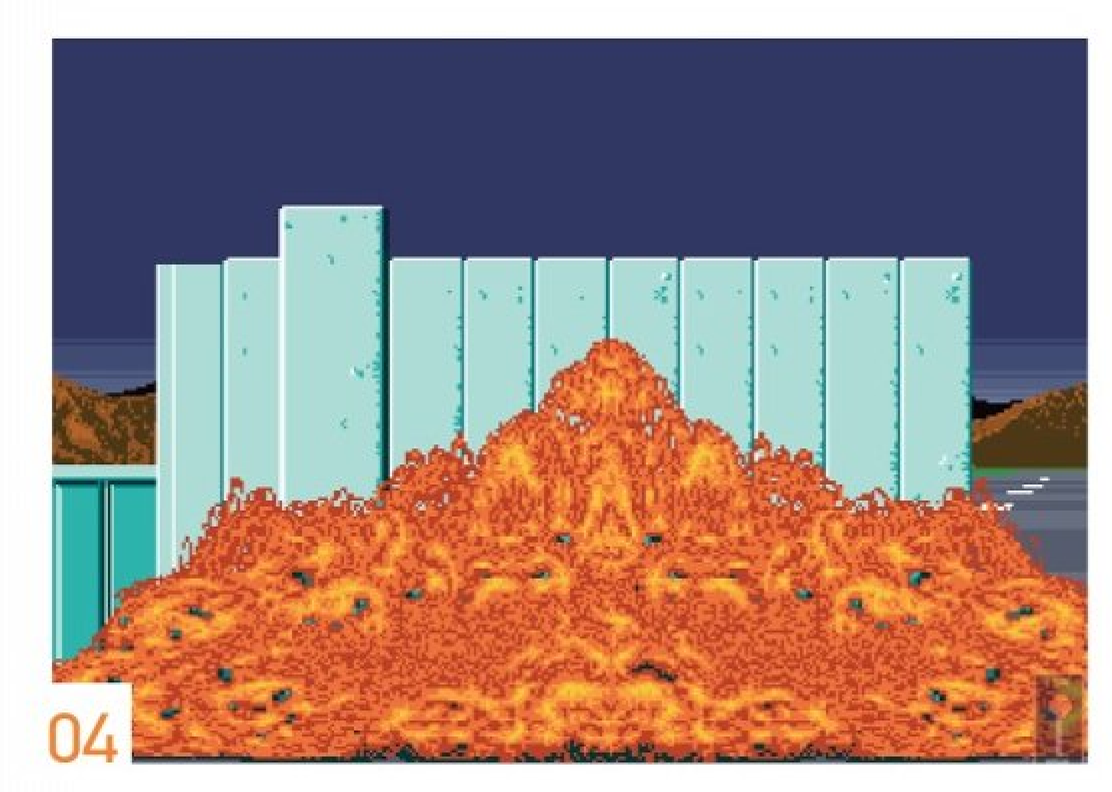
02

» Clearly a drop-out from criminal school, Tony orders his pilot to hover just a few centimetres above the road. Of course, this makes it very easy for our two cops to ram his frail flying machine using nitro and front bumper power.



03

» With the criminals arrested, Gibson and Broady drive them to a secluded field and beat the whereabouts of the President's daughter out of them. They learn that she's being held in a fireworks factory, and it's set to explode in 30 seconds.



04

» The duo jump inside their motor and nitro their way towards the factory. With just seconds to spare, they break into the factory, somehow find the exact room where she's being kept, and… KABLOOM! What? It can't be! NOOOOOOOO!!



05

» Phew, they're fine. For a minute there, boys, we thought you'd become the Super Crispy Investigation team. And no, these are not tears of unnecessary grief you see pouring from our eyes; we actually got tiny bits of factory in them from the explosion.


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